JPRS 74845

31 December 1979

USSR Report

INDUSTRIAL AFFAIRS

No. 521

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50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. JPRS 74845	2.	3. Recipient's Accession No.

4. Title and Subtitle
USSR REPORT: INDUSTRIAL AFFAIRS, No. 521

5. Report Date
31 December 1979

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address
Joint Publications Research Service
1000 North Glebe Road
Arlington, Virginia 22201

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
As above

13. Type of Report & Period Covered

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This serial report contains information on the development and productivity of the automotive and tractor industry; electronic and precision equipment; metalworking equipment; construction equipment and building materials.

17. Document Analysis a. Descriptors

USSR
Automotive Industry
Agricultural Machinery
Construction
Construction Materials
Construction Equipment
Electronics Industry
Metalworking Equipment
Economics

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group 2C, 5C, 13C, 13F, 13H, 13I, 13M

18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 101
	20. Security Class (This Page) UNCLASSIFIED	22. Price

(See ANSI-Z39.18)

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

JPRS 74845

31 December 1979

USSR REPORT

INDUSTRIAL AFFAIRS

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AUTOMOTIVE AND TRACTOR INDUSTRY

INCREASING PRODUCTION OF EQUIPMENT FOR HOISTING AND TRANSPORT WORK

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 14 Oct 79 p 2

[Article by economists A. Shadyyev and P. Krylov, Moscow: "Sectorial Responsibility"]

[Text] For quite some time SOTSIALISTICHESKAYA INDUSTRIYA has been engaged in a basic discussion on the mechanization of heavy, labor-intensive, and auxiliary work. The reason for this is clear. Suffice it to say that currently over eight million people in the country are engaged in performing auxiliary operations. We could confidently claim that no single sector employs even half this number of personnel.

Nevertheless, we are forced to take up this problem again, for, as the readers have justifiably pointed out in their letters to the editor, the mechanization process is advancing far too slowly. The head ministries--Heavy and Transport Machine Building; Construction, Road, and Municipal Machine Building; Electrical Equipment Industry, and Automotive Industry--have done little in practice to implement the CPSU Central Committee and USSR Council of Ministers decree "On Measures to Accelerate the Development of Production and Upgrade the Technical Standard of Means for the Mechanization of Lifting-Transport, Loading-Unloading and Warehousing Operations in Industry, Construction, and Transportation," for whose implementation they are responsible.

Specifically speaking, they were to organize and increase the production of conveyors, fork-lift and electric hoist trucks, coal ore, and construction materials conveyors, crane-stackers, automated manipulators, and so on. For this purpose the ministries were instructed to develop specialized capacities so that by 1980 the production of such equipment could be raised by a factor of 2-2.5.

Five years passed since. The production of lifting-trasport equipment rose somewhat but requirements are being far from fully met. For example, last year the overall volume of loading-unloading and lifting-transport operations at industrial and construction enterprises totaled 31.2 billion tons. Of these 193 million were handled manually, without the use of machinery and mechanisms, necessitating the labor of seven million people. Such is the result of equipment shortages.

Statements are frequently made to the effect that matters would have been different had the USSR Gosplan planned more efficiently or, in other words, had it allocated specifically capital investments for the building of new capacities for the production of lifting-transport and other auxiliary equipment. There is a share of truth in such claims. In our view, however, the main reason for the lagging lies elsewhere. How to explain, for example, that despite their coordination and balancing, the annual plans of the current five-year plan are being implemented with considerable delays? Thus, 7,300 of the 26,800 electric hoists planned will not be received by the customers along with 14,000 of the 24,000 containers? A similar situation prevails in the case of many other types of equipment. What is the specific reason for this?

The degree mentioned earlier makes it incumbent upon the four head ministries to build 25 new and reconstruct 33 plants which would install specialized production facilities for the manufacturing of a variety of machines and mechanisms. However, all four ministries have failed to implement the program. They have initiated the construction of only three plants and reconstructed only two operating ones.

Deprived of the necessary equipment, the consumers were forced to organize the manufacturing of such equipment at their own enterprises. For example, currently some 400 plants of over 40 ministries and departments throughout the country are engaged in the production of lifting-transport mechanisms. Motorized cranes are being produced by 35 enterprises under 12 ministries. Conveyors are manufactured by 112 plants under 18 ministries. Light lifting facilities are produced by 30 plants under different department, while ground-type hauling machinery is produced by enterprises under 11 ministries. As a rule, such equipment is produced by low-capacity nonspecialized production facilities. It is manufactured in small batches, frequently based on individual designs, and fails to meet modern requirements and, naturally, at triple cost. There is frequent duplication. For example, the Yenakiyevo Boiler-Machine Plant of the USSR Ministry of Installation and Special Construction Work, the Samtredia Machine Plant of the USSR Ministry of Food Industry, and the Gorokhovets and Polevskoy plants are manufacturing identical belt conveyors. The Zaprozh'ye Power Machinery Plant of the USSR Ministry of Power Machine Building is producing bridge cranes of the same dimensions as the Khar'kov Plant for Lifting-Transport Equipment imeni V. I. Lenin of the Ministry of Heavy and Transport Machine Building. . . The list could be extended.

A total of 140 organizations under different ministries and departments are engaged in scientific research and design work in this area. Under such circumstances there could not even be a question of standardizing machines and equipment. The newly developed 59 models of lifting-transport equipment contain 68,000 parts.

About 60 percent of them have original designs. What a great deal of unnecessary labor is invested and what a large number of capacities are used inefficiently! The picture of places where the production of mechanization facilities is organized on a truly industrial basis is entirely different. Thus, the Leningrad Plant for Lifting-Transport Equipment imeni S. M. Kirov developed a series of uniform portal cranes. Earlier, individual designs called for 226 different assemblies. They have now been replaced by 42 standardized assemblies. Labor intensiveness has dropped by one-half while the weight of the parts had dropped 15 percent. The reserves concealed within standardization and specialization are easily imaginable.

We must point out that delays in the production of ground-type transport facilities, which play one of the leading roles in the mechanization of loading-unloading, transport, and warehousing operations at industrial enterprises, are particularly alarming. Ground-type transport facilities have a number of essential advantages compared with other types of equipment serving a similar purpose. The construction of a set of specialized plants for the production of loaders, self-propelling industrial trolleys, machine units, assemblies, and parts for lift trucks and electric hoists will make it possible to ensure the production of most modern ground-type transport machinery with a large complement of racking attachments to replace equipment based essentially on motor vehicle assemblies. Specialists have estimated that the use of such machinery would save the national economy about 960 million rubles and release approximately 760,000 workers.

In order for the head ministries in charge of the development and production of such equipment so urgently needed by the country, to undertake the project properly rather than blame shortcomings in production capacities, the following decision was taken: Starting with this year the USSR Gosplan will allocate as a special item capital investment funds for the construction of new plants. In our view, this creates prerequisites for the development of a powerful base which could become a base for inter-sectorial production in the future.

We should also begin to consider the organization of a single management of the production of lifting-transport equipment. This would be consistent with the spirit of the recent CPSU Central Committee decree on improving the economic mechanism further and the tasks of party and state organs, directly stipulating that "Proposals will be formulated related to further improvements within the organizational structure of management, including measures to surmount departmental lack of coordination. . . ."

5003
CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

BUILDING SUPPLY REVAMP URGED TO CUT UNCOMPLETED CONSTRUCTION

Moscow EKONOMICHESKAYA GAZETA in Russian No 46, Nov 79 p 17

[Article by N. Kachalov, Deputy Chairman of USSR Gosstroy: "Funds Have Been Invested. What Has Been Done?"]

> [Text] Certain problems of reducing the amount of uncompleted construction above the norm.

Everyone knows about the enormous amounts of capital construction being accomplished in our country. The multitude of new construction projects in cities, towns and villages is one of the characteristic features of the dynamic development of the country of the Soviets. Each year new factories, plants and electric-power stations, agricultural production complexes and grain elevators, railroads and trunk pipelines, and housing and sanatoriums are being put into operation....

At the same time one cannot help but also note the large number of unfinished jobs. The picture, let us say frankly, is not a cheerful one.

The Norms Are Not for Form

The total amount of uncompleted construction at the start of 1979 had reached 85 percent of the annual capital-investment volume instead of the 65 percent of the norms. The "nezavershenka" [uncompleted construction] above the standard turned out to be 23 billion rubles of capital investment, including construction and installing work that cost about 16 billion rubles. Almost 2½ years of work by all the collectives of such a huge contractor as USSR Mintyazhstroy [Ministry of Construction of Heavy Industry Enterprises] would be required to create such a "nezavershenka" above the norms. This is almost the same amount of capital that was invested during the First and Second five-year plans put together. And calculations indicate that the amount of above-norm uncompleted construction will not be reduced during 1979 but will increase.

It is known that, for the normal development of a country's economy, there is a need not for capital investment in construction in general but only for that investment that will, first, provide for the completion of new, rebuilt or expanded fixed capital by the planned deadlines. Second, the investment needed to create, in accordance with modern construction technology and organization, the so-called backlog of accomplished work. This is nothing else but the execution of a definite set and amount of construction and installing work that will provide for the later introduction of facilities by the deadlines established by the norms.

The construction-time norms that are approved jointly by USSR Gosplan and USSR Gosstroy are mandatory for the planning and execution of construction. They call for the most optimal deadlines for completion of the complexes and individual stages of construction that are due for startup, including the amount of work needed to create a backlog of accomplished construction work within the given plan period. These norms are reviewed systematically each 5 years, and they are reapproved to take into account the achievements of science, technology and advanced experience, a strengthening of the supply and equipment base of contracting organizations, the constant development of the country's economy, and the increasing potential for providing capital construction with modern constructional materials and mechanization resources.

Prior to the end of this year, for example, it is contemplated reapproving the construction-time norms that are in effect right now; they will be used in preparing plans for the Eleventh Five-Year Plan. Engineering and economic estimates indicate, and advanced domestic practice and foreign experience confirm, that contemporary construction periods can, by 1990, by reduced by at least four-ninths on the average, and the level of uncompleted construction reduced to 60-62 percent of annual capital-investment volume.

Strictly for the Purpose Intended

Right now the amount of uncompleted construction exceeds the norm 1.3-fold for all branches of the national economy. This does not at all create conditions that are favorable for accelerating completion of the construction of facilities that are scheduled for startup. On the contrary, the above-standard "nezavershenka" excessively burdens an already complicated situation in capital construction. Its growth has been stimulated by cases of wasteful and uneconomic investment of resources in a large number of new construction starts, which leads to a reduction of material resources and the diversion of workers from facilities call for by the plans.

About 2.8 million tons of rolled metal, 13 million tons of cement and 7 million cubic meters of converted timber have been expended in creating the above-standard "nezavershenka."

Behind these figures stand an underprovisioning of construction projects with resources that has in fact prevailed in recent years, including an underprovisioning imposed (without adequate substantiation, really because of a shortage of resources) by planning organs through an "additional task" to reduce the approved building-materials consumption norms. A shortage arises also as a result of the mandatory use of materials that industry has supplied but do not meet the requirements of the standards or the designs.

The situation with respect to the provisioning of capital construction with rolled metal, cement and converted timber that actually prevails is aggravated to a still greater degree by the diversion of resources during construction; this construction is doomed, as a result, to appear in the "uncompleted, above-norm" column.

In brief, an effective tool for averting growth in uncompleted construction, which right now is virtually out of control and a rise in operator discipline at all levels are necessary. These requirements follow from the decisions of the party and the government to improve the management mechanism. What measures is it desirable to adopt for the quickest possible realization thereof?

In our opinion, it is necessary, first, to provide at all stages for the unfailing observance of construction-time norms. A deviation from the norms that is concurred in by the client and the contractor is possible for precisely no reason other than greater concentration of allocations and resources for speeding up introduction ahead of the deadlines called for by the standards. This principle should become a law that no one is allowed to violate.

Second, it is important to determine precisely the industry, intraindustry and territorial priorities that were mentioned in the July decree of the CPSU Central Committee and the USSR Council of Ministers. We are speaking here of assigning top priority to the construction of facilities that is being performed by contracting organizations and the concentration of material resources, construction machinery and other resources, as well as work force, at the most important construction projects. It is desirable to erect other facilities as the search for additional resources permits, taking into account also the duration of the construction.

Third, in formulating and using economic incentive funds for construction and installing organizations, consideration should be given to the computed index for creating the required backlogs of accomplished construction work at facilities that are intended by the plans for later introduction. For it is known that an optimum backlog of accomplished construction and installing work created on time is the basis for success of the program for startups.

Fourth, it would be desirable to establish a procedure under which contracting construction organizations will not end up as captives of deficiencies in the provisioning of materials and equipment because of systematic undershipments thereof with respect to the funds allocated or because of violations of client specifications. For these involve an overconsumption of materials at construction projects. The responsibility of supply organs as intermediaries between suppliers and the recipient of materials and industrial equipment should also be raised. This is all the more necessary because of the drafting of the new five-year plans, which has started in earnest.

11409
CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

EXPERT REVIEW OF BUILDING DESIGNS MEETS RESISTANCE

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 15 Sep 79 p 2

[Article by Yu. Bychek: "Grimaces of Bureaucratic Logic"]

[Text] Glavsreduralstroy [Main Administration for Construction in the Central Urals Economic Region], along with several other main administrations and construction ministries of the republics, is now participating, for the second year, in an experiment about intensifcation of the role of contracting construction and installing organizations in improving design solutions.

In considering the experience of our Leningrad colleagues, who went into the experiment 2 years earlier, from the very start we strove to arrange for close creative contacts with our partners--the clients and the design institutes. But the results so far have been nil. As have the Leningraders, we at times have run into active resistance from the partners. In the first stage they prolong the examination of our proposals in every way. And then, during the examination they go to any lengths to discredit them.

The review of our proposals for the design of the Polevskoy Machine-Building Plant have been dragging on now for more than 7 months in Mintyazhmash [Ministry of Construction of Heavy Industry Enterprises], causing the cost of construction to increase 27 percent. The construction project cannot wait until the ministry bestirs itself. In particular, we had to give up a change in the three-dimensional layout solution of the main building that promised a saving on the order of 2 million rubles--more than 10 percent of the cost of the construction and installing work....To this very day Minchermet [Ministry of Ferrous Metallurgy] does not answer our proposals for the Kuvshinovo Plant for Mill Rolls and Diesel Locomotive Repair. And the total saving is a handsome 10 million rubles!

> Tens of such examples can be cited from the experience of other expert-review offices. How long will our partners put agency interests above those of the national economy?--V. Zaytsev, chief of the Expert-Review Office of Glavsreduralstroy.

We have the right, in essence, to regard the work of contractor expert-review organs as one of the most important practical measures for realizing the program for raising capital investment effectiveness, as called for by the 25th CPSU Congress and the recent implementing decree of the party's Central Committee and the USSR Council of Ministers, "Improvement of the Planning and Intensification of the Effect of the Management Mechanism on Raising Production Effectiveness and Work Quality." In working out the terms of the experiment, its initiators--All-Union Gosstroy and Minstroy [Ministry of Construction]--were pursuing two aims: on the one hand, to create an additional barrier against design defects and errors, and, on the other, to spur creative activity of the designers, forcing them to consider possible rivalry on the part of the contracting organization.

However, judging by V. Zaytsev's letter, the contractor's expert-review organ, almost 4 years after the start of the new practice, has had to overcome serious obstacles not at all foreseen in the program.

But perhaps the writer is laying it on thick? Well, it's a bit complicated to explain. It's enough to phone chief of the expert-review office of Glavzapstroy [Main Administration for Construction in the Western Economic Region] V. Kamenev in Leningrad. How are things going in the organization whose activity our paper has already mentioned twice?

Everything is still the same. Since August of last year, when the article, "Taktika ukloneniya" [A Diversionary Tactic] was published, there has been no basic change of any kind in the life of the office. As before, its workers have been deprived for many months of a defense of the progressive solution they proposed. In 8 cases out of 20, the office's proposals are adopted after months of litigation with the clients and the designers. The litigation, which is elevated to still higher levels of appeal, are resolved only by Glavgosekspertiza [Main Administration for State Expert Review of Designs and Estimates for Construction Work] of USSR Gosstroy, and then not always at the first hearing. And those 6 months or that year that passes during the disputes and concurrences often completely "eats up" time that could have been saved in construction if the proposal had been implemented at once.

The latest conflict of Glavzapstroy's Expert-Review Office with a client was, this time, with USSR Minlegprom [Ministry of Light Industry], but in essence it was in no way different from any of those that preceded it. Indeed, it surpassed them only in duration. For its outcome was as clear as possible back in January of this year, when Glavgosekspertiza recognized the justification and desirability of the office's proposal. In so doing, USSR Gosstroy's expert reviewers noted the low quality of the design for the Vozrozhdeniye spinning and weaving factory and the unsatisfactory quality of the engineering solutions for the production building of the Tribun clothing association.

But even Glavgosekspertiza's second decision, which was adopted in April and which confirmed the first one, did not please the client very much. It was not long thereafter, in the last days of August, that representatives of GPI-3 [State Design Institute No 3] and USSR Minlegprom tried, not for the last time, judging by everything, to promote their version of the Vozrozhdeniye factory design. But they were not successful.

What was the cause of the conflict? I put this question to Deputy USSR Minister of Light Industry A. Zabelin.

"But is there really a conflict?" said Aleksandr Nikolayevich in surprise. "In my opinion, this is the ordinary process of solving technical questions. Disputes in this case are inevitable."

But perhaps it is the rights of the client that they are protecting? It is up to them to operate the enterprise not for just one decade, and not for just two decades. And before changing anything, everything must be weighed: will the contractor's proposals not degrade the technical and economic characteristics, will they not then strike at production interests?

But no, not everything is explained by wise proprietary carefulness. One searches in vain for favorable motives for the conduct of people who are defending obvious waste. And this is just how Glavgosekspertiza evaluated the above-mentioned designs for Tribun and Vozrozhdeniye. What was being disputed for more than a year, what was holding things up? I did not get an answer to this question at USSR Minlegprom.

Now about the imaginary consequences of the contractor organization's expert-review offices. It must be recalled that they were given the right to acquire the most highly qualified experts from the parties concerned, and they actively use this right, which the statistics confirm. Here are Glavgosekspertiza's references. Last year contractor expert-review offices reviewed 68 designs and made proposals on 46. And only in one case did Glavgosekspertiza decide a dispute in favor of the client.

And how does USSR Gosstroy evaluate the progress of the experiment? I asked deputy chief of Glavgosekspertiza M. Zaytsev this question.

"It goes without saying that it is positive. It has helped to reveal substantial reserves in the designs that have been approved--get this!--by agency expert review. On the average, these reserves consist of up to 10 percent of the construction cost. At the same time, we are greatly disturbed by the existing situation. Our leading client ministries are, in essence, with rare exception, trying to boycott this undertaking.

"Actually, a large number of other examples of cases just as scandalous as those of Leningrad and Sverdlovsk can be cited. Thus, the Sinara Pipe Plant of Minchermet and the Kamensk-Ural'skiy Electrical Machinery Plant of

Minelektrotekhprom [Ministry of Electrical Equipment Industry] simply refused to present the design and budget-estimating documentation to Glavsreduralstroy's expert-review office. USSR Minmyasmolprom [Ministry of Meat and Diary Industry] and Minelektrotekhprom delayed by many months concurrence with the proposals of the expert-review office of Glavsrednevolzhskstroy [Main Administration for Construction in the Middle Volga Economic Region].

"We can, of course, force the clients into more active collaboration, using our right to prohibit construction for obviously poor designs," continued Mikhail Maksimovich. "But this measure can be used only in an extreme case: for, as a rule, our business is with construction project designs that are already included in the state plan. It is another matter to create a stimulus for designers' collaboration. Let's say, we give them a bonus for the responsive processing of documents. We have twice applied to USSR Goskomtrud [State Committee for Labor and Wages] with the proposal but have received a categorical refusal."

And why, exactly, was there a refusal? Because the committee considered this proposal an attempt to establish a material incentive for...waste. That is the sense of the letter of the committee's deputy chairman, B. Sukharevskiy, that was sent to USSR Gosstroy in April this year.

Still, one must not paint everyone in a dark color without exception. I will not dispute that the designers of, let's say, GPI-3, should not be rewarded but should be punished for poor work. But why should the engineers of Stavropol' Promstroyproyekt [State Planning Institute for General Construction and Sanitary Engineering Design of Industrial Enterprises], who did well their work for the Kingisepp Machinery-Repair Base be put on the same shelf? Just because the expert-review office found a better solution? That is not correct. The approach should be differentiated.

Ways must be sought for material and moral incentives for designers to have creative contacts with the contractor's expert reviewers.

The chief of the Expert-Review Administration of USSR Minlegprom B. Borisov told me in a Gosstroy corridor after the next round of disputes on Vozrozhdeniye:

"The expenditures for all these reviews, discussions and agreements must be counted....How many specialists are taken away from their jobs, how much is spent for business trips? And the construction project, meanwhile, is losing its pace. Aren't the losses here greater than the gains?"

What is right is right. Count the costs. Then just who is held accountable for a loss? For sure, not the expert-review services of the contracting organizations. For it is not they who place the agency's prestige above the national economy's interests.

11409
CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

PRODUCTION OF LONG ASBESTOS-CEMENT WALL PANELS DELAYED

Minsk SOVETSKAYA BELORUSSIYA in Russian 6 Oct 79 p 2

[Article by D. Manayeva: "Into the Circle of Noncoordination"]

[Text] At the beginning of the 1970's there was a trend toward creating lightweight structure and introducing it into our republic's construction industry. The scientific development of this problem was under the Institute for Construction and Architecture of BSSR [Belorussian SSR] Gosstroy. One of its laboratories--for enclosure structure--created wall panels involving the use of asbestos cement, mainly for rural construction needs. The innovative aspect here was that local materials were used, and metal consumption and weight of an important structural element were reduced. The scientists' development passed the test of practice: a large number of buildings made of 3-meter asbestos-cement board were built in Belorussia. In 1975 the originating collective that created the technical innovation was awarded the prize of the USSR Council of Ministers.

However, the new idea, as often happens in science, was not completely exhausted; it also suggested other constructional possibilities. The inquisitive thought of the scientists trod the path of consolidating the panels. This is one of the urgent problems of the construction industry. With a constantly growing volume of construction, especially of industrial buildings, the consolidation of constructional elements is of enormous importance. Scientific workers of the Institute of Construction and Architecture (ISiA) decided to double the length of the asbestos-cement panels, and this means that half the metal supporting columns are required for the erection of a plant's walls, so there are substantial savings of metal. Studies went on for reductions of weight, thickness of the panels, and so on.

When the republic's plan for the Tenth Five-Year Plan was being formulated, ISiA proposed to include in it this work, among other things. The proposal was adopted, and the topic became one of the components in the republic's program of scientific and technical problems. It was formulated in the following way: "Develop and introduce structure and the production technology for asbestos-cement panels 1.5x6 meters with mineral-wool thermal insulating layer." ISiA was named the head organization, with

Stroymontazhindustriya Combine (now the Prommontazh Association] of the BSSR Ministry of Industrial Construction and Belpromproyekt [Belorussian Institute of Industrial Design] of BSSR Gosstroy as co-workers. Prommontazh was required to establish a test section and to turn out the first lot of the new panels. Belpromproyekt was to prepare the documentation for an experimental building made of the new structure. And the deadlines for the work stages were defined.

The scientists got through with their work on time. They created and tested the new panel under laboratory conditions. It has been recognized as an invention, that is, as a new word in technology. The advantages of the asbestos-cement panel over keramzit-concrete panel (the builders call it PSL) that is now used in large-scale production are clear. While the PSL weighs 240 kg (computed per 1 square meter), the asbestos-cement panel is 45 kg. Steel consumption is 5.7 kg in the first case, 2.8 kg in the second. Labor expenditures in manufacturing and erecting, the scientists anticipate, also will be cut almost in half. Moreover, a local material--mineral wool, which Belorussia's industry produces in a large amount--is used as the thermal insulating material.

By the start of this year the enclosure-structure laboratory of ISiA had also carried out the second task--it had developed the technology and prepared technical documentation for the test section to produce the new structure. Thus, the scientific research was completed and readied for industrial introduction. The time had come for the co-workers to undertake their assignment. This is how the question was posed in the article of ISiA director G. Shukov that was published in our newspaper on 21 March. It summed up the results of the institute's work on the republic's problem as a whole for the first 3 years of the five-year plan. Our newspaper has been acting as patron for the development of this problem.

Half a year passed.

How is the introduction of the new asbestos-cement panels going?--we put this question to the Engineering Administration of BSSR Minpromstroy [Ministry of Industrial Construction]. Administration deputy chief Nelli Semenovna Zarovkina answered us:

"We reported to you about this in our answer to Shukov's article. Nothing has changed since then. We cannot tell you anything new."

The dryish, decisive tone of my collocutor had clearly conveyed a disinclination to converse further. I had to resign myself to it. Perhaps, I thought this is a quality of the modern businessperson--to save his own and the stranger's time. Actually, why take up each other's time if there is documentation where everything has been written in black and white? And it bears the signature of BSSR Minpromstroy minister B. S. Kurlen'.

I shall take the liberty of quoting that part of it that relates to asbestos-cement wall panel.

"The plan for introducing the achievements of science and technology of BSSR Minpromstroy during 1979 calls for the manufacture of a machine for the production of panel framework, the installation at SZhB [Prefabricated Reinforced-Concrete Products] Plant No 1 of Prommontazh of an industrial line, and the output of an industrial-test lot of wall panels, which are to be used in the experimental construction of the concrete-mixing department of the building-materials combine at Shklov."

As a matter of fact, everything has been set out precisely, logically and coherently, as if it had been pinned to a sturdy framework. It remained for me only to define more accurately whether everything had been done. I will adhere to a principle--I will go through the stages of introduction. The equipment for the manufacture of the new panels? It is ready. This was done by the Dzerzhinsk Machinery-Testing Plant of BSSR Minpromstroy, jointly with ISiA's industrial-design office. The test section for the production of the new structure? This is where misunderstanding begins. There is no such section at SZhB Plant No 1 of Prommontazh Association, and they are only thinking about establishing it....The experimental building made of the new wall panels? It is explained here that it will not be built in Shklov, although Belpromproyekt issued documentation for its erection last year. They still have not found a place for the facility.

The shapely pyramid of the introductory stages created by my imagination began to sway, like a house of cards.

The document that N. S. Zarovkina referred to, it turned out, was obsolete and did not correspond to reality. The BSSR Ministry of Industrial Construction had not fulfilled its commitments and had not stayed within the approved deadlines. According to the plan, the test section should have gone into operation in the third quarter of this year and in the fourth it should produce a test lot of panels, so that an experimental building could be constructed from them in the first quarter of 1980. Then, by the end of next year, it will be possible to give industry valid recommendations about mass production of the new wall panels.

The deadline for carrying out the introductory development stages has been missed by just one quarter (as of now!), but the mass of contradictions and lack of coordination are already difficult to untangle.

Prommontazh Association, in vindicating itself, declares:

"There is still no facility for which we should make panels!"

And Belmezhkolkhozstroy [Belorussian SSR Interkolkhoz Construction Trust], for which a building in Shklov also had been planned, advances the counterargument:

"There are still none of the panels that we are supposed to build it with!"

It is not necessary, however, to search through all this muddle for some kind of evil intention or the resistance of a convinced reactionary. The recent plenum of the Central Committee of the KPB [Communist Party of Belorussia"] on questions of science pointed this out. P. M. Masherov's report to it named as paramount tasks: improvement of the economic organization mechanism for transmitting and putting into practice the results of scientific research, and the arrangement of stable ties of science with production and of production with science.

This task also confronts construction affairs severely. Historical data testify to this. There is no existing system here by which enterprises would be economically motivated to accelerate the introduction of new techniques. For example, the Prommontazh Association considers that the new wall panels that ISiA developed are not entirely within its jurisdiction. Yet it is here at BSSR Minpromstroy enterprises that more than 50 percent of all capacity for prefabricated reinforced-concrete has been concentrated, and these enterprises also have mastered practically all types of prefabricated reinforced-concrete structure. But these enterprises do almost no work with wood. And there are wooden parts in the panels that ISiA scientists proposed. This means that lines that had been adjusted must be rebuilt. Belmezhkolkhozstroy has a lot of "wood," but it still does not need wall panels 6 meters long.

Thus agency interests that prevent a union of science and production collide and come into opposition. And since all the ties among the participants of the joint development are held up by agreed principles, then it is enough for someone to violate one clause of the agreement for the "disturbance" to pass along the entire chain. This is what happened with introduction of the asbestos-cement wall panel.

The deadlines for the introductory stages have been broken, but it is still possible to catch up on what has been missed, and to break out of the circle of noncoordination and mutual complaints. This must be done in the near future, so that one of the important scientific developments written into the republic's five-year plan will pass industrial testing as quickly as possible, as had been planned, and be given the right of mass production.

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STATUTE ON INDUSTRIAL CONSTRUCTION AND INSTALLATION ASSOCIATIONS

Moscow EKONOMICHESKAYA GAZETA in Russian No 49, Dec 79 pp 9-16

[Statute on Industrial Construction and Installation Associations]

> [Text] The Statute on Industrial Construction and Installation Associations, coordinated with Gosplan of the USSR, Goskomtrud [State Committee for Labor and Social Problems] of the USSR, Minfin [Ministry of Finance] of the USSR and Stroybank of the USSR, was confirmed on 6 November 1979 by decree No. 215 of the State Committee of the USSR on Construction Affairs (Gosstroy of the USSR).
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> It was established by the decree of the CPSU Central Committee and the USSR Council of Ministers, dated 12 July 1979, "On improving the planning and intensifying the effect of the economic mechanism to increase production efficiency and work quality" that the main cost-accounting section of construction production should become the industrial construction and installation associations.

1. Main Propositions

1. The industrial construction and isntallation association is a unified production-economic complex which contains general construction and specialized construction-installation administrations and equivalent organizations, industrial enterprises of the construction industry, organizations for material and technical supply and production and technological supply, transport subdivisions and other production units.

Production units contained in the industrial construction and installation association are not legal bodies and the statute on the state socialist production enterprise does not apply to them.

The industrial construction and installation association is the main cost-accounting section of construction production; its activity is structured on combining of centralized management with economic independence and the initiative of the association itself.

The association can be created:

a) to carry out the entire volume of contract construction, accomplishment of which is entrusted to the ministry (agency), in a specific territorial rayon (oblast, kray, ASSR or region of construction concentration);

b) for construction of objects according to sector designation or performing special types of construction and installation work in regions of construction concentration, an economic region, union republic or several oblasts.

Industrial construction and installation associations are created with annual volumes of construction-installation work of not less than 50 million rubles, performed by a general contract.

Industrial construction and installation associations specialized to perform individual types of construction-installation work as a contractor are created with annual volumes of work performed through their own efforts of not less than 50 million rubles with regard to correcting coefficients for the complexity and laboriousness of the jobs.

2. An industrial construction and installation association, using government property included in its operational management or use, performs its activity through the efforts of the association collective under the supervision of a superior body according to the plan of economic and social development based on cost-accounting, performs the duties entrusted to it and enjoys the rights related to this activity, has an independent budget and is a legal body.

3. The present statute is applicable to industrial construction and installation associations regardless of their agency affiliation.

4. The main tasks of the industrial construction and installation association are:

performing tasks to put production capacities and objects into operation, to perform complexes of special construction and installation work accomplished under contract within deadlines which provide timely introduction of production capacities and objects into operation and a guarantee of high quality of the work performed;

development of optimum plans and fulfillment of tasks on construction and industrial production, on profits and other indicators of the state plan, fulfillment of the plan of payments to the budget, observance of state discipline and timeliness of accounts with banks and suppliers;

a guarantee of technical progress, extensive use of the advances of science, technology and leading experience, planning work by new technology and reducing the deadlines for introduction of them into production;

a universal increase of labor productivity and production efficiency based on concentration, specialization, cooperation and combination of production, increasing the level of industrialization and mechanization of construction, extensive introduction of leading methods of labor organization and the brigade contract, maximum use of internal reserves, universal intensification of production and also introduction of progressive production processes and systems for controlling them, a systematic reduction of the costs of construction-installation work and of the products of industrial enterprises and increasing the profitability of production;

efficient use of the hardware of railroad, water, air and motor transport, systematic improvement in organization of loading-unloading and transport operations, mechanization of these operations and implementation of measures to reduce the idle times of transport facilities for loading and unloading;

efficient use and an increase of the effectiveness of capital investments allocated for construction of enterprises and objects of the association, reduction of the deadlines and of the cost of construction, guaranteeing fulfillment of the tasks in capital construction of these enterprises and objects, introduction of basic funds and production capacities into operation and complete use of production capacities;

improvement of planning, control and cost-accounting, introduction of scientific organization of labor and production, increasing the role of economic-mathematical methods and more extensive use of computer technology and communications in production management and also increasing the role of economic methods in management;

organization and implementation of complete supply with structural members, installation blanks, parts, transport facilities, construction machinery and mechanisms and construction materials and products according to schedules of the objects under construction;

timely conclusion of contract agreements for capital construction, subcontract agreements and also consideration and coordination of estimate documentation, plans for organization of construction and intraconstruction title lists of construction projects within established procedure;

output of the products of enterprises of structural members and materials of high quality, organization of production of new products corresponding in their technical-economic indicators to the high achievements of domestic and foreign technology;

strengthening labor discipline and creating conditions for consolidation of cadres and improvement of the forms and systems of wages and material and moral stimulation;

implementation of all necessary measures to protect the air, soil and reservoirs against pollution by industrial and farm wastes, wastewaters and production wastes and also to control noise and radio interference;

universal development of a socialist competition, a guarantee of the wide participation of workers in management of production and implementation of measures on social development of the association collective;

improvement of the cultural-service and housing conditions of workers and creation of more favorable and safe working conditions.

5. The industrial construction and installation association is formed, depending on its subordination, by a ministry (agency) of the USSR or by a Council of Ministers of a union republic according to the legislation of the USSR and the union republic.

The territorial disposition of the associated production units, their specialization and the need for complete or partial centralization in performing production-accounting functions for purposes of increasing the efficiency of construction production are taken into account in formation of an association.

The production unit of an association unit is created by a body superior with respect to the association according to the representation of the chief (manager) of the association.

6. Individual independent organizations and enterprises which enjoy the rights provided by the statute on a state socialist production enterprise may be subordinate in some cases to the industrial construction and installation association by decision of the ministry (agency) of the USSR or the Council of Ministers of the union republic.

An association to which independent organizations and enterprises are subordinate emerges as the superior body with respect to them. In these cases the association may completely or partially centralize the performance of individual production and economic functions of the indicated organizations and enterprises.

7. The industrial construction and installation association is responsible in its duties to that property attached to it for which a penalty may be imposed according to the legislation of the USSR and the union republic.

The responsibility of the association according to the duties of a superior body and independent organizations and enterprises subordinate to the association and also responsibility of the superior body and independent organizations and enterprises subordinate to the association by duties of the association occurs only in cases provided by legislation of the USSR or union republic or by agreement.

The state is not responsible for the obligations of the association and the association is not responsible for the obligations of the state.

8. The industrial construction and installation association has a charter confirmed by a superior body.

The charter of the association should contain:

the name (number) of the association, its location (post office address) and the properties of the accounts of the association in banking institutions;

the name of the body to which the association is directly subordinate (the superior body);

the object and purpose of the activity of the association;

indication that the association has a charter fund;

indication that the association is acting on the basis of the present statute and is a legal body;

the name of the responsible person who heads the association (chief or manager);

a list of the production units contained in the association with indication of the location of each of them and the properties of these accounts if they have accounts in banking institutions.

The charter may also include other statutes related to the characteristics of the association's activity which do not contradict the law of the statute.

The association enjoys the rights and duties related to its activity and is a legal body from the day the charter is confirmed.

9. The rights and duties of the production unit of the industrial construction and installation association are defined by existing legislation, this statute and regulations on the given production unit.

The regulations on the production unit are confirmed by the chief (manager) of the association; the regulations on its structural subdivisions (sections, shops, departments, services and so on) are confirmed by the chief (manager) of the production unit.

The chief (manager) of the association has the right to give the production unit additional rights within the competency of the association, with the exception of the rights transferred by the association to a superior body.

10. The production unit has its own name in which should be indicated the name of the industrial construction and installation association to which it belongs.

11. The production unit makes use of the basic and circulating funds and the labor and material resources attached to it, it carries out its activity on the basis of cost-accounting within the rights established by law and also the rights transferred to it by the industrial construction and installation associaton;

concludes economic agreements in the name of the association, the responsibility for which is borne by the association. The list and types of these agreements are determined by the association.

The production unit may have a current account in institutions of Stroybank of the USSR or Gosbank of the USSR. The production unit, located outside the location of the association, may have a pay account and account for financing capital investments in institutions of Stroybank of the USSR or Gosbank of the USSR.

12. The procedure for accomplishing intraeconomic relations in the industrial construction and installation association, the consequences of violating their own duties by production units and also the procedure for resolving intramanagement quarrels within the association are determined by the association.

13. The tasks and instructions related to the activity of the industrial construction and installation association, its production units and independent organizations and enterprises subordinate to the association may be assigned by superior bodies only to the association, except for cases provided by existing legislation.

14. The industrial construction and installation association enjoys the rights of possession, use and disposal of the property under its operational control and the right to use the land allocated to it within the limits established by law, according to the purposes of the association's activity, planning tasks and the designation of the property.

15. The industrial construction and installation association is obligated to observe socialist law and state discipline in its activity. The rights granted to the association and also to its production units should be employed in the interests of the entire national economy, the association and its production units.

A superior body should provide strict observance of the rights of the association and its production units and should also monitor fulfillment of its own duties and proper use of the rights granted to it by the association.

2. Managing the Industrial Construction and Installation Association

16. The industrial construction and installation association is managed on the basis of a proper combination of one-man management and collegiality in discussion and solution of all problems on managing the activity of the association.

Social organizations and collectives of workers of the association and its production units participate widely in preparation of the drafts of plans of the production-economic activity of the association (or production units), in development and implementation of measures to ensure fulfillment of these plans, in development and improvement of the association's activity and in improvement of working conditions and well-being of its workers.

17. The management of the industrial construction and installation association exercises management of this association.

The association is headed by a chief (manager) operating on the basis of one-man management.

The chief (manager) of the association is appointed to his post and is fired from his post within the procedure determined by the ministry (agency) of the USSR or by the Council of Ministers of the union republic.

18. The chief (manager) of the industrial construction and installation association organizes all its work and bears total responsibility for the association's activity.

The chief (manager) acts without power in the name of the association, represents it in all organizations, at enterprises and in institutions, disposes of the association's property according to existing legislation and this statute, concludes agreements, gives power of attorney (including that with a right of transfer) and opens pay and other accounts of the association in banks.

The chief (manager) issues orders within his competency, hires and fires workers according to labor legislation within established nomenclature, employs incentives and imposes penalties on the workers of the association.

The chief (manager) cancels the orders of managers of production units or gives instructions that must be executed on a change of these orders if they contradict existing legislation, this statute or other official acts.

19. The deputy chiefs (managers), the chief bookkeeper and the chief of the legal department (the chief of the legal office, senior legal advisor or legal advisor) of the industrial construction and installation association are appointed to and fired from their post by a superior body according to the representation of the chief (manager) of the association.

20. The competence of the deputy chiefs (managers) and other managers of the workers of the industrial construction and installation association are established by the chief (manager) of the association.

The deputy chiefs (managers) act within their competence in the name of the association, represent it at other institutions and organizations, and perform economic operations and may conclude agreements without the power of attorney and may also give the power of attorney to workers of the association.

21. The production unit is headed by a chief (director);

The chief (director) of a production unit is appointed to or fired from his post by the chief (director) of the association.

22 . The chief (director) of the production unit organizes all its work and bears responsibility for the activity of the production unit.

23. The chief (director) acts within the competence of the production unit without power of attorney in the name of the production unit, issues orders according to existing legislation, this statute and regulations on the given production unit concerning the property attached to it, issues orders, opens current, pay and other accounts in established procedure of the production unit in a bank, concludes economic agreements in the name of the association and hires and fires workers according to labor legislation. The chief (director) of the production unit adopts measures within established procedure to provide incentives and imposes penalties on workers of the production unit.

24. Workers cannot be fired at the initiative of the administration of the industrial construction and installation association or the production unit without preliminary agreement of the corresponding trade-union committee, with the exception of cases provided for by USSR law.

25. An association council is created to combine the interests of the production units with those of the industrial construction and installation association and also to increase responsibility of production units for the results of the economic activity of the association as a whole within the association. The council includes the chief (manager) of the association, his deputies, the chiefs (directors) of the production units and also representatives of the social organizations of the association.

In those cases when individual independent organizations and enterprises are subordinate to the association, the managers of these organizations and enterprises are included in the council.

The chairman of the council is the chief (manager) of the association.

Specialists and supervisor employees of the association, the production leaders and also representatives of other organizations, enterprises and institutions are recruited to participate in the work of the council in necessary cases.

26. The council of the industrial construction and installation association considers:

drafts of future and current plans for development of the association, its production units and also drafts of plans for development of independent organizations and enterprises subordinate to the association, bearing in mind adoption of optimum plans and the maximum use of production reserves;

reports on the production-economic activity of the association, its production units and also independent organizations and enterprises subordinate to the association;

problems of conclusion and execution of economic agreements;

problems of supporting technical progress, increasing the scientific and technical level of planning-design work performed, using the results of this work in production, increasing the quality of construction-installation work and productions of the enterprises of the construction industry and also introductionof standards;

problems of increasing the effectiveness of capital investments in the construction of enterprises and objects of the association, reducing the construction deadlines and their cost and accelerating the assimilation of design capacities;

problems of observing state discipline with respect to prices;

drafts of plans of organizational-technical measures directed toward providing specialization and cooperation of production units and independent organizations and enterprises subordinate to the association, the most efficient use of production capacities and material, labor and financial resources and toward improving the organizational structure of the association;

problems of scientific organization of labor and production, improvement of management and cost-accounting, normalization of labor and the forms and systems of wages and material and moral incentives;

problems of organization and development of a socialist competition, study and dissemination of leading experience and introduction of progressive forms and methods of increasing the creative activity of workers;

problems of selection and use of personnel;

problems of intrafacility relations, the consequences of violations of their duties by the production units and the procedure for solving intrafacility disputes;

problems on the scope of the material incentives fund and the fund of social-cultural measures and housing construction of the association placed at the disposal of the production units and also drafts of the standards of deductions to these funds, problems of determining the part of the production development fund in cases when it is transferred to the production units; problems of using the economic incentives funds and other funds of the association;

the status of working conditions and safety regulations within the association;

problems of social development of the association collectives and of its production units and also and also the collectives of independent organizations and enterprises subordinate to the association;

other problems of the association's activity.

27. The decisions of the council of the industrial construction and installation association are usually implemented by orders of the chief (manager) of the association.

If there are differences between the chief(manager) and the council of the association on problems discussed at a meeting of the council, the chief (manager) implements his own decision.

28. A technical-economic council made up of highly qualified specialists, production innovators and representatives of scientific research and other organizations, may be created to consider technical and economic problems for development of the industrial construction and installation association, to work out recommendations on the use and introduction of the latest advances of domestic and foreign science and technology, important inventions and the results of scientific discoveries into production and of leading experience in the association.

The composition of the technical-economic council and regulations on it are confirmed by the chief (manager) of the association.

29. Collective agreements within industrial construction and installation associations and within production units contained in them are concluded in the procedure determined by the AUCCTU and the State Committee of the USSR on Labor and Social Problems.

30. Rules of internal labor regulations are established according to sector rules by the administration of the industrial construction and installation association upon coordination with the appropriate trade-union body or upon the decision of the administration and trade-union committee of the production unit.

31. The administration of the industrial construction and installation association and in cases provided by this statute, the administration of the production unit, jointly with the appropriate trade-union body, distributes within established procedure floor space in the apartment buildings of the association and also the housing area at the disposal of the association (production unit) in other buildings.

32. The administration of the industrial construction and installation association and of the production unit, jointly with the appropriate trade-union body, organizes the socialist competition, summarizes its results and determines the winners in the competition and resolves problems of rewarding the leading collectives and workers.

33. The administration of the industrial construction and installation association and of the production unit reports at meetings of the appropriate trade-union body about the drafts of plans, the results of production-economic activity, fulfillment of plans and pledges according to collective agreement, measures provided for by the plans of socialist development of the collectives and on measures adopted to correct deficiencies in work.

34. The economic activity of the industrial construction and installation association is analyzed and its economic stimulation is provided according to the results of fulfilling the tasks on introduction of production capacities and objects into operation, commercial construction products and an increase of labor productivity and profits.

In cases when the tasks on introduction of production capacities and objects, commercial construction products and profits into operation are not provided (or are provided in insignificant scope) to the association during individual quarters or the year of the five-year plan:

the association's activity is evaluated by the results of performing construction and installation work according to the schedules for production of this work according to individual objects and structures, confirmed by the contractor and the customer, and also by the indicators of reducing the cost of construction-installation work and an increase of labor productivity;

coverage of planned expenditures and advance expenditure of material incentives funds in the part not covered by balance profits, due to a saving from reducing the cost of construction-installation work and planned accumulations in uncompleted production.

35. Permanently operating production meetings which accomplish their activity on the basis of the statute confirmed by the USSR Council of Ministers and AUCCTU, are organized for wide recruitment of workers and employees to participate in solution of the production problems in production units and their structural subdivisions and in necessary cases in the industrial construction and installation association as a whole.

The administration of the association, production units and their structural subdivision assists in every possible manner the successful work of the permanently operating production meetings and organizes fulfillment of their decisions.

36. Meetings (conferences) of workers of the industrial construction and installation association and of production units discuss the drafts of production plans, the results of fulfilling plans, plans for social development of collectives and fulfillment of the measures provided in them, drafts of collective agreements and the course of fulfilling pledges for them, production problems, problems in the use of economic incentives funds and also problems of the status of labor and production discipline and observance of internal regulations in production from administration reports. The administration reports to the meeting (conference) on measures implemented to execute the decisions of meetings (conferences) held earlier and also the results of consideration of critical comments and suggestions advanced at the meetings (conferences).

37. Peoples control groups and posts are created within the industrial construction and installation association and production units, to which the administration of the association and the production units is obligated to render all possible assistance in their work, to consider their suggestions and recommendations and to adopt the necessary measures to eliminate discovered deficiencies.

38. The production and financial-economic activity of the industrial construction and installation association is reviewed by a superior body with recruitment of interested organizations in a composite manner once per year.

The activity of the association is checked by the superior body and peoples control bodies and may also be checked by other state bodies according to the functions entrusted to them by existing law on monitoring the activity of organizations and enterprises.

The association checks the production and financial-economic activity of its own production units.

3. The Property of the Industrial Construction and Installation Association

39. The property of the industrial construction and installation association consists of the basic and circulating funds which form its charter fund and also the funds and other property attached to the association.

The property attached to the association is reflected in its independent balance sheet.

If independent organizations and enterprises are subordinate to the association, their property is reflected in the independent balance sheets of these organizations and enterprises. In these cases the association compiles the summary balance.

40. The following funds are created within the industrial construction and installation association:

the production development fund;

the material incentives fund;

the fund for social-cultural measures and housing construction;

the fund of depreciation deductions designated for capital repair;

the fund for assistance in introduction of investions and innovator proposals;

other funds according to USSR law.

The procedure for formation and expenditure of funds is determined by existing law and this statute.

Specific trends of using the monies of the production development fund, the material incentives fund and the fund of social-cultural measures and housing construction are determined by the association administration jointly with the trade-union committee. The labor collectives participate actively in discussion and solution of problems of using monies for production development and also for social-cultural measures, housing construction and material incentives. The monies of the indicated economic stimulation funds are used strictly according to their designation. Unused remainders of funds are carried over to the next year and are not subject to withdrawal.

The scope of the material incentives fund and the fund of social-cultural measures and housing construction and also the norms for deduction from profits to these funds and to the production development fund according to the industrial construction and installation association as a whole are determined by a superior body within established procedure.

41. The industrial construction and installation association allots part of the basic and part of the circulating funds of the association to the production unit, necessary for fulfilling the production program. Circulating funds are allotted according to established norms (standards).

The production unit has at its disposal part of the material incentives fund and part of the fund for social-cultural measures and housing construction and may also receive part of the production development fund determined by the association.

In this case, the material incentives fund may be formed within the production units according to the differentiated standards established by the association at the discretion of the association.

The production unit may have a separate balance sheet.

In cases when individual independent organizations and enterprises which enjoy the rights provided by the statute on a socialist state production enterprise are subordinate to the association, the association may centralize up to 10 percent of the material incentives funds of these organizations and enterprises.

42. The circulating funds attached to the production unit may be deducted from it by the industrial construction and installation association if there is a change in the established procedure of the norms (standards) of the circulating funds.

The association has the right, and upon the suggestion of the production unit, is obligated to deduct from it surplus material valuables related to the basic and circulating monies.

43. The overall scope (norm) of the circulating monies of the industrial construction and installation association itself and their growth or decrease are confirmed within established procedure on the basis of the planned tasks and in accordance with the standards for expenditure and reserves of commercial and material valuables.

The circulating monies attached to the association cannot be withdrawn from it by a superior body within the standard.

Surplus circulating monies (above the norm) can be withdrawn from the association by a superior body only within the procedure of redistribution according to the annual account of the association or if the norms of its own circulating funds change with regard to a change of the plan of contract construction in installation work and the production plan for the association.

44. The buildings, structures, operating equipment and other basic facilities attached to the industrial construction and installation association can be transferred to other organizations and enterprises within the procedure established by law of the USSR and the union republic.

45. Temporarily unused buildings and structures, production, warehouse and other buildings, equipment, transport facilities and other objects related

to the basic funds can be leased by the industrial construction and installation association to other organizations and enterprises. The lease payment for buildings, structures and spaces is collected according to the tariffs existing locally where they are located and the payments for other objects related to the basic funds are collected within the dimensions of not more than the sums of the depreciation deductions and payment for funds according to a given type of property.

46. Surplus, unused equipment, transport facilities, instruments, tools, inventory, raw material, materials and fuel can be sold by the industrial construction and installation association to other organizations and enterprises provided that the following procedure is observed.

The presence of surpluses of material valuables, the funds for which were allocated to the association by a superior body, should be reported to this body and with regard to surpluses of material valuables distributed by territorial bodies of material-technical supply, they should be reported to the corresponding territorial body.

If the superior body refuses to redistribute the surpluses or if no answer is received from it within a two-week deadline from the day the communication is dispatched, the association informs the corresponding territorial body of material-technical supply about these surpluses.

If the territorial body of material-technical supply refuses to sell the surpluses or if no answer is received from it within one month from the day the communication is dispatched, the association sells the surpluses independently.

The materials, tools and other material valuables acquired by the association during local procurement are sold by it independently.

The sums received as a result of sale of material valuables related to circulating funds remain at the disposal of the association as its circulating funds.

The sums received from the sale of material valuables related to basic funds remain at the disposal of the association and are directed by it to the production development fund.

47. The industrial construction and installation association and the production unit makes available to the corresponding trade-union body of the association (production unit) free of charge the buildings, spaces, structures, gardens and parks on the balance sheet of the association (production unit) and leased to them, which are intended for cultural-educational, sanitation, physical culture and sports work among the association (production unit) workers and members of their families, pioneer camps and also the buildings, spaces and structures intended for technical propaganda.

Economic maintenance, repair, heating, lighting, cleaning, protection and equipping of the indicated objects are accomplished at the expense of the association (production unit). In cases when the workers of other enterprises and organizations also use them, these enterprises and organizations are recruited to voluntary participation in the indicated expenses.

The association (production unit) makes available to the corresponding trade-union body and to other social organizations of the association (production unit), free of charge, the spaces required for their work and for conducting meetings of workers and employees, provides the equipment, heating, lighting, protection and cleaning of these spaces and also makes available free of charge to the indicated organizations transport facilities and communications facilities.

48. The industrial construction and installation association (production unit) transfers free of charge from its balance sheet to that of the trade-union and other social organizations of the association (production unit) the cultural-service and sports inventory acquired at the expense of the association (production unit), which can be used to acquire this type of property according to existing law.

49. The industrial construction and installation association and the production unit provide free of charge:

spaces attached to their health institutions or to their structural subdivisions with provision of heating, lighting, water supply, protection, cleaning and repair of these spaces;

dining hall and other public catering organizations registered on the balance sheet of the association (production unit) or located on the territory of the association (production unit) and which service the collectives of its workers--spaces with provision of heating, lighting and water supply of these spaces.

50. The industrial construction and installation association and the production unit can make available free of charge a secondary educational evening (shift) and correspondence school, evening (shift) vocational-technical school, courses and an academic-course combine for improving qualifications in which their workers study, spaces for academic purposes, the necessary equipment, instruments, tools and materials for academic laboratories and offices with provision of repair and economic maintenance of the spaces, including supply with electric power and fuel.

The association may offer free of charge to the general educational schools equipment and materials and may also make expenditures for construction, repair and equipping of these schools at the expense of above-plan accumulations.

51. The industrial construction and installation association makes depreciation deductions for capital repair and for complete recovery of basic funds.

Depreciation deductions intended for capital repair of basic funds are used by the association strictly according to direct designation.

Part of the depreciation deductions intended for financing capital repair are transferred within established procedure to the ministry, agency or All-Union construction and installation association for creating a reserve to assist those organizations and enterprises which do not have their own funds sufficient to accomplish capital repair.

The depreciation deductions intended for total recovery of basic funds remain within established procedures at the disposal of the association and are included in the production development fund. The remaining part of the depreciation deductions intended for total recovery of the basic funds is sent according to existing law for financing capital investments.

52. All the floor space constructed at the expense of the fund for social-cultural measures and housing construction, transferred to the disposal of the production unit, is occupied by persons according to a list confirmed by joint solution of the production unit administration and the trade-union committee with subsequent reporting to the executive committee of the Council of Working Peoples Deputies.

Location of trade, public catering and public service enterprises in buildings constructed at the expense of the indicated funds may be authorized only with agreement of the administration of the association (production unit) and the corresponding trade-union body.

53. The workers of the industrial construction and installation association are obligated to treat state property with care, to properly operate buildings, structures and equipment, and to observe strict economy in consumption of material and monetary funds. Persons guilty of damaging state property and inflicting material losses to the state bear responsibility within established procedure.

4. The Rights and Duties of the Industrial Construction and Installation Association

54. The rights belonging to the industrial construction and installation association and the duties entrusted to it, related to its activity, are accomplished by the chief (manager) and according to established distribution of duties--by his deputies and other responsible persons and in cases provided by this statute and other normative acts, jointly upon coordination or with the participation of the corresponding trade-union body.

55. The industrial construction and installation association may be granted additional rights by a superior body (in the field of planning,

scientific-technical progress, capital construction, material-technical supply and so on) within the competence of this body.

Rights and Duties in the Planning Field

56. The industrial construction and installation association, being guided by control figures, with the participation of trade-union and other social organizations and the collective of workers of the association, works out drafts of five-year plans of economic and social development (with distribution of tasks by years) and also annual plans for all types of its own activity and suggestions for drafts of plans for a longer period, proceeding in this case on the basis of tasks of the superior body and the achievements of scientific and technical progress.

A mutual tie-in of all sections of the plans should be provided within the drafts of plans worked out by the association and complete use of internal reserves should be provided.

57. The superior body reviews with recruitment of the industrial construction and installation association and confirms to it the five-year and annual planned tasks according to the established system of indicators and provides the association with the corresponding material-technical and financial resources and wage fund required to fulfill these tasks.

All the remaining indicators of the association plans are not confirmed by the superior body, but are worked out by the association and are used by the planning bodies as calculating materials to justify the plans.

58. All the planned tasks are brought to the industrial construction and installation association only by a superior body and they are brought to the production units only by the association.

59. The industrial construction and installation association, having production units in other oblasts, krays and republics, works out plans not only in the sector, but also in the territorial section by the corresponding indicators and presents control figures, the main indicators of the drafts of plans and confirmed plans, according to the location of the association and its production units, to kray, oblast and municipal planning committees and the Gosplans of the autonomous republics, and in union republics not having oblast division--to the Gosplans of these republics.

60. The industrial construction and installation association, according to the indicators confirmed to it, works out the five-year plan with distribution of the most important tasks by years of the five-year plan which is the main form of planning the production-economic activity of the association.

The association, according to the planned tasks confirmed to it and the contract agreements concluded, works out the annual construction financial plan and quarterly and monthly plans of production-economic activity.

The five-year plan, the annual construction and financial plan and quarterly and monthly plans of the association are confirmed by the chief (manager) of the association.

The association establishes the main indicators of the five-year, annual, quarterly and monthly plans of the production units contained in it which provide fulfillment of the planned tasks confirmed to the association with the greatest saving.

The production unit, based on the indicators established by the association, works out the plans of the production-economic activity for the production unit as a whole and for its own structural subdivisions.

61. The deadlines for development and confirmation of five-year and annual plans of the industrial construction and installation association are determined by the ministry (agency) of the USSR or the Council of Ministers of the union republic.

62. The planned tasks confirmed to the industrial construction and installation association should be stable and they can be changed by a superior body only in exceptional cases, after preliminary discussion of these changes with the association administration within the procedure and deadlines established by the USSR Council of Ministers.

The corresponding changes in all the related planning indicators, including those related to the budget, without changing the relationships of the superior body to the budget, should be introduced simultaneously if there is a change of the planned tasks to the association by a superior body.

63. The industrial construction and installation association supervises the organization of planning work within the production units, providing quality and timely development of plans, their stability and also makes a daily check of fulfillment of plans and implements the necessary measures for this.

Rights and Duties in the Area of Scientific-Technical Progress

64. The industrial construction and installation association works out long-term programs for development of the association and also measures to improve technology and means of mechanization and automation of production and control systems and to reduce production expenditures.

The association participates in development of drafts of future and annual plans of scientific research work by a superior organization and the use of the achievements of science and technology in production.

65. The industrial construction and installation association may conclude agreements with other organizations and enterprises to accomplish complex developments, individual scientific research and planning

for the association, for delivery of new types of products and to render the necessary services related to installation and use of these products.

The expenditures for the indicated work is on the account of the funds available to the association for these purposes and also on the account of bank credit.

66. The industrial construction and installation association provides through the corresponding services of the association timely detection of defects in production and manufactured products and prevention of low-quality fulfillment of construction-installation work and product output not corresponding to the standards, specifications, drawings and confirmed prototypes (standards) to increase the quality of construction-installation work performed and output of high-quality products by enterprises of the construction industry.

67. The industrial construction and installation association:

a) works out the technical-economic norms, norms for consumption and reserves of raw material, fuel and materials, norms for consumption of heat and electrical energy for production and operational needs according to existing law;

b) confirms the norms and standards according to a list established by a superior body within its competence;

c) may establish a list of norms and standards confirmed by production units.

68. The industrial construction and installation association guarantees a continuous increase of the technical level of production, improvement of the production processes and control systems for them used in production and complex mechanization and automation of the main and auxiliary production processes.

The association develops and confirms within established procedure future and annual plans for introduction of new equipment, providing in them the use of inventions and innovator suggestions.

69. The industrial construction and installation association organizes work on invetion and efficiency studies on the basis of future and current topical plans, guarantees the timely use of inventions and innovator suggestions and also payment within established procedure of awards for the use of inventions and innovator suggestions and prizes for contribution to the invention and innovation.

The association organizes an exchange of experience, holds contests, competitions and inspections on invention and innovation jointly with the corresponding trade-union body and the organization of the All-Union Society of Inventors and Innovators.

The association guarantees within established procedure timely determination of inventions developed by workers of the association with regard to performing their service tasks, formulation and submission of applications for authors' certificates in the USSR and for obtaining patents abroad in the necessary cases.

70. The industrial construction and installation association universally assists the activity of the primary organizations of the scientific and technical society and the All-Union Society of Inventors and Innovators to develop creative initiative of the workers, recruits them to develop specific tasks for technical development of production and to renew produced products, drafts of future and current plans for introduction of new equipment, inventions and innovator suggestions and also to fulfill these plans.

The association supports the indicated primary organizations and also public design, technological and patent offices, bureaus of standards, councils of innovators, public institutes and scientific research laboratories, offices and groups of economic analysis, technical information offices, councils of scientific organization of labor and other creative associations with spaces, equipment, instruments, inventory and technical and reference literature.

The association, for purposes of wider recruitment of engineering-technical workers and of innovators to participate in technical improvement of production, may upon coordination with the corresponding trade-union body and the council of the primary organization of the Scientific and Technical Society, transfer to this council the functions of technical-economic council of the industrial construction and installation association.

71. The administration of the industrial construction and installation association, jointly with the corresponding trade-union body and the councils of the primary organizations of the Scientific and Technical Society and the All-Union Society of Inventors and Innovators, regularly conducts scientific, production-technical and economic conferences and meetings of engineering-technical and scientific workers, production leaders and innovators for discussion of problems of technical progress, economic development of the association and working out recommendations and proposals directed toward further improving the quality of construction-installation work, improvement of equipment and technology and control of production and guarantees timely implementation of these recommendations and suggestions.

Rights and Duties in the Area of Construction of Enterprises and Objects of the Association

72. The industrial construction and installation association carries out capital construction of enterprises and objects of the association, guarantees the most efficient use of capital investments, priority direction

of them toward technical re-equipping and reconstruction of basic funds, concentration of funds on starting construction projects and objects, reduction of the estimated cost and reduction of the volumes of uncompleted construction.

73. The industrial construction and installation association adopts measures to reduce deadlines, to increase quality and to reduce the cost of construction of enterprises and objects of the association and also guarantees the observance of the established norms for the length of construction and the deadlines for introducing production capacities and basic funds into operation; it assimilates newly introduced production capacities within the deadlines provided by the norms for the length of their assimilation.

74. The industrial construction and installation association concludes agreements with planning organizations for working out planning-estimate documentation on construction of enterprises and objects of the association.

75. The industrial construction and installation association confirms:

the planning-estimate documentation and title lists for expansion (reconstruction) of existing objects of production designation, accomplished at the expense of the production development funds remaining for these purposes at the disposal of the association, regardless of the estimated cost of the work;

the planning-estimate documentation and title lists for construction and expansion (reconstruction) of objects accomplished at the expense of the fund for social-cultural measures and housing construction and other financing sources remaining at the disposal of the association for these purposes, regardless of the estimated cost of the work;

the title lists for technical re-equipping of enterprises regardless of the total estimated cost of the work according to the limits of capital investments established for the association and construction-installation work and material funds.

The association has the right to use the corrected sector coefficients to existing estimate norms for construction-installation work and to norms of overhead expenses, established by Gosstroy of the USSR, when determining expenses for work on technical re-equipping and reconstruction:

title lists for construction of apartment buildings and objects of cultural-service designation and public facilities accomplished at the expense of state capital investments, except for the title lists of newly begun theaters, movie theaters, circuses, concert, movie concert, exhibition and sports halls, palaces of culture and sport, palaces of culture and clubs, stadiums, swimming pools, skating rinks and tracks with artificial ice and other similar objects and also sanitoria, rest homes and pensions;

title lists for work to guarantee protection of labor, safety regulations and production sanitation;

internally constructed title lists.

The title lists for construction of apartment buildings and objects of cultural-service designation at the expense of the fund for social-cultural measures and housing construction and also title lists for work to guarantee protection of labor, safety regulations and production sanitation are confirmed by the association upon coordination with the corresponding trade-union body.

Confirmed title lists of enterprises (objects) of the industrial construction and installation association should be an unchanged planning document for the entire period of construction. Changes in the indicators of title lists can be introduced only upon review of the drafts with regard to the use of more improved equipment and progressive technology.

If work during the current year was carried out on the construction project to a lesser volume than provided in the title list, the permitted lag should be made up during the next year at the expense of material-technical resources not used during the preceding year and also from the reserves of ministries and agencies.

76. The industrial construction and installation association has the right to confirm unit rates for work, the demand for which occurs during construction, if the rates for this work have not been confirmed within established procedure.

77. The work plans for capital repair and the corresponding estimate-financial calculations are confirmed by the chief (manager) of the association.

78. The industrial construction and installation association has the right to use part of the funds allocated to it within centralized procedure for housing construction for construction of children's preschool institutions. The decision on this use of funds is made by the chief (manager) of the association jointly with the appropriate trade-union body.

79. The industrial construction and installation association may carry out construction of apartment buildings, construction and expansion of objects of public facilities, medical and children's preschool institutions, pioneer camps and other objects of cultural-service designation jointly (with fractional participation) with other organizations and enterprises at the expense of capital investments provided to the association by the plan for these purposes.

Rights and Duties in the Area of Material-Technical Supply

80. The industrial construction and installation association organizes and provides material and technical supply of the association with regard to the general state supply system existing in the country.

81. The industrial construction and installation association establishes for the production units the norms of reserves of material valuables and also allocates for them the limits (funds) for material resources and redistributes them within established procedure with regard to a change of the production program.

The production unit located other than the association receives funds from the association for material resources distributed by a superior body with respect to the association and from territorial bodies of material-technical supply at the location of this production association for material resources distributed by these bodies. The indicated production unit realizes the funds within established procedure.

82. The industrial construction and installation association realizes the funds allocated to it and bears responsibility for efficient use and proper storage of material resources.

83. The industrial construction and installation association may conclude long-term agreements for organization of supply of the association with territorial bodies which provide guaranteed complex support of it with materials and products and centralized delivery of them by coordinated schedules and sale of surplus and unused material valuables.

The association concluding the indicated agreement has the right to transfer to the territorial body of material-technical supply its own reserves of material resources within agreed-upon dimensions.

84. The industrial construction and installation association may acquire products from other organizations and enterprises without funds, sold without warrants, and may also purchase the necessary objects of material-technical support within the procedure of wholesale and retail trade according to existing law.

85. The industrial construction and installation association has the right to transfer funds to other organizations and enterprises and to allocate to them from its own resources materials and complete sets of equipment according to established norms for manufacture by agreements for products needed by the association.

86. The industrial construction and installation association has the right to completely or partially reject the products allocated to it and to refrain from concluding an agreement with communication of this refusal to the supplier, fund holder and to the body issuing the order within a

deadline of not later than 10 days after receiving the notification of allocation of a product to it or after receipt of an order.

The association also has the right to refuse to accept a product provided by agreement upon coordination with the supplier, with notification about this of the fund holder and body issuing the order within 5 days.

86. The industrial construction and installation association has the right to allot the materials, semifinished products and finished products necessary to conduct this work within the limits of the funds allocated to it with payment within established procedure to the organizations performing scientific research work for it.

Rights and Duties in the Area of Personnel, Labor and Wages

88. The industrial construction and installation association selects and places the management personnel of the association, determines the current and future needs for labor resources according to norms, including specialists with higher and secondary specialized education and for qualified workers, adopts measures for efficient use of young specialists and graduates of vocational-technical schools and implements measures directed toward creation of permanent personnel of the association.

89. The industrial construction and installation association constantly improves its own structure, achieving a maximum reduction of expenses on management of production on the basis of using optimum management schemes, norms of the number of engineering-technical personnel and salaried employees, utilizing the experience of associations having the most economical management apparatus, introduction of modern computer technology and mechanization and automation of engineering-technical and management work.

90. The industrial construction and installation association carries out and constantly improves the organization of labor, continuously raises the level of its normalization, systematically checks the existing norms and standards for labor and the correctness of using unified norms and rates for construction-installation work, introduces intersector and agency time standards and other norms compulsory for use within established procedure, creates conditions for highly productive work, achieving a constant group of labor productivity; guarantees observance of legislation on labor, rules and norms of labor protection, safety regulations, production sanitation and state social insurance, carries out sanitation measures and guarantees observance of labor discipline.

Each member of the association collective should strictly observe the rules of internal labor procedures.

91. The industrial construction and installation association implements measures to improve the organization of wages for workers and salaried employees to intensify the material interests of workers both as a result

of their personal labor and within the total sums of work of production units and the association as a whole, guarantees a correct relationship between the growth of labor productivity and the increase of wages, economical and efficient expenditure of the wage fund and the material incentives fund and also timely settlements with workers and salaried employees.

92. The industrial construction and installation association creates an academic-material base for teaching personnel directly in the plant and guarantees training of new worker personnel according to the law of the USSR and union republic with regard to the requirements of scientific-technical progress, teaching new occupations to workers and systematic improvement of the production qualifications of workers. For these purposes, besides individual and brigade teaching, training combines (technical schools and academic stations) and schools for study of leading methods of labor are organized in the association.

The association creates the necessary conditions for combining study and work to workers studying in academic institutions without separation from production and grants them privileges provided by existing law.

93. The industrial construction and installation association renders assistance in all ways possible to the secondary general educational (evening) shift) and correspondence school, the vocational-technical school, courses and the academic-course combine in which the association workers are studying; it provides the necessary conditions for on the job teaching of students of general educational secondary schools, students of higher and students of secondary specialized academic institutions; according to existing law, it organizes and establishes apprenticeship of graduates of higher educational institutions, allocates jobs and duties to higher and secondary specialized educational institutions and vocational-technical schools for placement of their students for the time they are undergoing on the job training.

94. The industrial construction and installation association and the production units are compensated for successful fulfillment of the tasks faced by them according to existing law and the conditions of the socialist competition.

Incentives provided by existing law, rules of internal labor regulations and by-laws on discipline are used for achievements in work and to display the initiative to workers and salaried employees of the association.

Workers and salaried employees of the association are presented for conferment of orders and medals of the USSR within established procedure and for awarding honorary ranks and the rank of Hero of Socialist Labor for especially outstanding innovator activity in the field of economic construction and high production indicators.

95. The industrial construction and installation association guarantees systematic improvement of the housing and cultural-service conditions of workers, organizes construction of apartment buildings, preschool children's institutions, hospitals and objects of cultural-service designation and contributes to cooperative and individual housing construction.

96. The industrial construction and installation association:

a) establishes the piece-rate system, time or piece wage of labor for individual groups of workers and in cases provided by existing law for engineering-technical personnel and employees and adopts measures for wide application of piece-work wages to workers:

b) works out and confirms in accordance with existing law the regulations on awarding material incentives throughout the association as a whole from funds formed at the expense of deductions from profits to intensify the material interests of the association workers to accelerate introduction of production capacities and objects into operation, to fulfill and overfulfill the production plans, to increase labor productivity, to improve product quality and also to increase the efficiency and profitability of production. In this case the indicators, conditions and scope of awarding prizes for supervisory workers of the management apparatus of the association are established by the director of the superior organization and those for the supervisory workers of production units and also for engineering-technical personnel and salaried employees of the association apparatus are established by the chief (manager) of the association. The indicators, conditions and scope of awarding prizes for workers, engineering-technical personnel and salaried employees of production units are established by the chiefs (directors) of these production units, being guided by the corresponding regulations on awarding prizes;

c) works out and confirms regulations on payment of awards for the annual results of work throughout the association as a whole, on the basis of which the supervisors of production units confirm the procedure and conditions for remuneration of the workers of these units;

d) determines the list of occupations for which the tariff rates of piece workers are used with hourly wages and also individual occupations of workers for whom monthly salaries instead of tariff rates are established, according to the list confirmed within established order;

e) determines the lists of occupations of workers and the jobs paid at increased tariff rates according to heavy and harmful working conditions, especially heavy and especially harmful working conditions according to existing standard lists of these occupations and jobs by production sectors;

f) establishes the categories of jobs and assigns categories to workers according to the unified tariff-qualifications manual;

g) establishes the job responsibilities and qualification requirements on supervisors, specialists and technical executives according to the Qualification Manual of the Duties of Salaried Employees and certifies within established order supervisors, engineering-technical personnel and other specialists of the association. It works out the duty instructions for individual categories of engineering-technical personnel and salaried employees in necessary cases on the basis of the Qualifications Manual;

h) relates the production units and also shops, sections and other structural subdividions of production units to the appropriate group (category) by the wage of supervisors, engineering-technical personnel and salaried employees and also transfers them from one group (category) to another with regard to a change in the volume of work, being guided in this case by the indicators confirmed within established procedure (with the exception of cases when a special procedure is established for relation to groups (categories) by wage);

i) establishes the length of additional leave to workers with unstandardized working day according to labor law and the list of duties of workers with unstandardized working day, confirmed within established order;

j) introduces a summarized account of the working time of workers and salaried employees of individual production units or of their subdivisions where the daily or weekly length of working time established for a given category of workers and salaried employees cannot be observed according to production (working) conditions;

k) confirms new and reviews existing wage standards, service standards, norms of the number of workers and other norms of labor expenditures within established procedure, increasing the specific rate of technically justified norms;

l) confirms the list of plants at which a reduced working day cannot be established for workers due to the nature of work on days before days off (with six-day work week) and before holidays and it should make available an additional day of rest as overtime hours are accumulated.

The measures indicated in subitems "a-m" of this section are implemented by the chief (manager) of the industrial construction and installation association (and in the cases provided by subitems "b" and "c"--also by the supervisors of the production unit) within the limits of the wage fund and the material incentives fund of the association (production unit) and by coordination with the appropriate trade-union body:

m) establishes upon coordination with the appropriate trade-union body on the basis of sector norms confirmed within the procedure determined by the USSR Council of Ministers lists of jobs and occupations which give workers and salaried employees the right to receive special clothing, special footwear and protective devices free of charge and also lists of jobs and occupations which give workers and salaried employees the right to receive milk with regard to hazardous working conditions and to receive special soap.

97. The industrial construction and installation association, upon coordination with the appropriate trade-union body, may upon review of the norms based on introduction of organizational-technical measures, use part of the funds of the saving achieved in this regard for additional payment of workers for the period of assimilating new forms of a development and maintenance norms for 3-6 months. The foremen and other engineering-technical personnel of production sections who participate directly in the development and introduction of the indicated organizational-technical measures may also be awarded prizes at the expense of funds from this saving.

98. The industrial construction and installation association has the right to pay at the expense of saving from the wage fund, achieved opposite to the established norm or planned wage fund, bonuses for tariff rates and salaries in the scope and within the procedure established for construction:

to workers for combination of occupations and for performing an established volume of work with fewer numbers of workers;

to qualified workers engaged in especially crucial jobs for high occupational skills;

to engineering-technical personnel and primarily to foremen and also to salaried employees for high qualifications within limits up to 1 per cent of the wage fund of the association.

The indicated bonuses are withdrawn if the work indicators deteriorate.

99. The industrial construction and installation association has the right, upon coordination with the appropriate trade-union body:

a) to establish reduced reduced wage norms for young workers coming to the job upon completion of general educational schools, vocational-technical academic institutions and courses and who have undergone training directly on the job in cases and within the scope provided by law and for the periods specified by them;

b) authorize if feasible a combination of professions (duties), expansion of the service zones or an increase in the volume of jobs performed and to establish the corresponding wages in an amount up to 30 percent of the salary to engineering-technical personnel and salaried employees. Additional payments to the salaries can be reduced or completely cancelled upon implementation of measures to introduce new equipment, improve the organization of labor and management of production and introduction of new norms of numbers, maintenance norms and other norms of labor expenditures in this regard;

c) establish additional payments in an amount up to 30 percent of the salary to senior superintendents (chiefs of sections), shop chiefs and their assistants, to superintendents, shift chiefs, senior foremen, foremen and other engineering-technical personnel working directly on construction sites and in the shops of enterprises who, as a result of implementation of the developed organizational-technical measures provided an increase of labor productivity compared to the plan with regard to reducing the numbers of personnel in the serviced sections. In this case the maximum appropriations for maintenance of the management apparatus, established by the association, are increased with authorization of the appropriate superior body for the sum of the indicated additional payments. If the achieved level of labor productivity is reduced or if there is an increase of the number of personnel (except for cases when this is caused by a change of natural or mining-geological conditions), additional payments to salaries may be reduced or cancelled;

d) to pay a simultaneous awarding of prizes to workers, supervisors and engineering-technical personnel for development and implementation of measures which provided a decrease of the number of workers and an increase of labor productivity compared to the plan. The scope of the prize is established as a function of the achieved level of an increase of labor productivity and the actual saving of the wage fund achieved due to introduction of the indicated measures.

The additional payments and prizes provided in subitems "b" "c" and "d" of this section are paid due to saving of the wage fund achieved from release of the number of workers compared to the intersector and sector norms of numbers, the service norms and other norms of labor expenditures;

e) to make additional payments to temporary workers who are temporarily performing the duties of responsible workers along with their own job (in the case of illness, leave, detached duty and for other reasons). A specific example of additional payment for performing the duties of a responsible worker is determined with regard to the actual volume of work performed in order that the total scope of the additional payment, regardless of the number of workers among whom it is distributed, does not exceed 50 percent of the tariff rate (salary) of the absent worker (except for cases when higher additional payments are authorized by decisions of the USSR Council of Ministers);

f) to establish additional payment to brigade leaders from among workers not released from their main job within the scope for supervision of the brigade provided by existing law.

100. The industrial construction and installation association may in individual cases maintain the wage for the period of assimilating the production, but for not more than 6 months if the wage at a new job is below their wage received at their former place of work for qualified workers and engineering-technical personnel of the association upon transfer of

hem to production units newly put into operation to produce structural members and products.

101. The industrial construction and installation association may use the saving achieved during previous quarters and months from the wage fund recalculated according to the percentage of fulfillment of the plan (with regard to existing norms) for payment of wages and prizes during subsequent quarters and months of this same year.

Overdrawing of the wage fund is subject to compensation for six months. The unsupplemented part of the sum of wage fund overdrawing permitted by the association can be reported to it during the calendar year. The prizes charged to supervisory workers and workers of the management apparatus of the association upon relative overdrawing of the wage fund throughout the association as a whole are reduced by the sum of the permitted overdrawing, but by not more than 50 percent of the charged prizes for the period until the overdrawing is compensated for. If the association compensates the permitted overdrawing of the wage fund within a period up to six months of the current calendar year, 50 percent of that part of the prize which was not paid during the previous periods with regard to overdrawing of the wage fund is paid to the indicated workers.

Prizes are paid in the same procedure upon overdrawing of the wage fund to supervisors, engineering-technical personnel and salaried employees of production units and their structural subdividions. In this case overdrawing of the wage fund is accounted for only according to the corresponding production unit or its structural subdivision.

If there is an absence of overdrawing of the wage fund throughout the association as a whole, the association may write off the uncompensated overdrawing of the wage fund during the past period existing in individual production units or their structural subdivisions.

If there is a saving of the wage fund throughout the association as a whole, the association also has the right to authorize payment of prizes in total scope to supervisors, engineering-technical personnel and salaried employees of production unit and their structural subdivisions who improved their own work, but did not compensate for overdrawing of the wage fund commited during the past period.

Prizes are awarded to senior superintendents (chiefs of sections), superintendents and foremen regardless of the status of expenditure of the wage fund throughout the association (production unit) as a whole. In this case the manager of the association (production unit), if there is an uncompensated overdrawing of the wage fund throughout the section permitted through the fault of the foreman, superintendent, senior superintendent (chief of section), may reduce the size of the prizes to these workers, but by not more than 50 percent, both during the quarter in which the overdrawing was permitted and in the next quarter of the calendar year, until it is compensated for, with subsequent payment of a prize within the scope established in the second paragraph of this item.

The procedure for writing off uncompensated overdrawing of the wage fund provided by individual structural subdivisions of the production unit and payment of prizes to supervisory workers if there is a saving of the wage fund throughout the production unit as a whole is determined by the chief (manager) of the association.

102. The industrial construction and installation association works out the structure and staff of the association within the general wage fund, appropriations for maintenance of the management apparatus and according to the provided charter, with respect to typical structures and staffs and norms of the number of engineering-technical personnel and salaried employees. The structure and staffs of the management apparatus of the association and production units are confirmed by the chief (manager) of the association.

The chief (manager) of the association, based on existing law, establishes and changes the salaries of engineering-technical personnel and salaried employees according to the scheme of official salaries and within the wage fund of the production unit, calculated according to the official salaries provided in its staff schedule, confirmed by the chief (manager) of the association.

The chief (manager) of the association confirms the estimate of expenses for maintenance of the management apparatus of the association and production units within the limit of appropriations established by the superior body for this purpose.

The staffs, salaries and estimate of expenses, confirmed by the chief (manager) of the association, for maintenance of the management apparatus is not recorded in financial bodies.

103. The chief (manager) of the construction and intallation association may permit workers of the association to go on detached duty to construction organizations and other production units, to independent enterprises and to organizations subordinate to the association and also to other enterprises and organizations according to existing law.

104. The industrial construction and installation association may in exceptional cases issue an unplanned advance to individual workers on the account of wages in the amount of not more than the monthly wage.

105. The industrial construction and installation association has the right to send leading workers and salaried employees, if they desire, to study at higher educational institutions and technical schools and to pay them increased stipends according to existing law provided that these workers are obligated to return to their job in the association which sent them to the academic institution upon completion o f the academic institution. Candidates sent for study to higher educational institutions and technical schools are nominated jointly with the social organizations of the association with establishment of increased stipends for them.

106. The industrial construction and installation association may grant workers upon their request temporary leave without pay for family circumstances and other extenuating factors.

107. The measures indicated in subitems "a" "f" and "k" of item 96, subitems "b" "e" and "f" of item 99 and items 104 and 106 may be implemented by the production unit in the procedure established by the chief (manager) of the association upon coordination with the appropriate trade-union body.

Rights and Duties in the Area of Finances, Credit, Accounting and Bookkeeping

108. The industrial construction and installation association organizes and carries out work on financial planning, works out and implements measures to fulfill the tasks of the financial plan, to strengthen cost accounting and planning-financial discipline, to increase profitability, guarantees the retention, purposeful and effective use of circulating funds and acceleration of their circulability, fulfillment of annual and quarterly tasks on payments to the budget established by the superior body, timely settlement with banks, suppliers, customers, contract organizations, superior organization, workers and salaried employees by wage and circumstances following from the financial plan and agreements.

When working out the financial plan, the association guarantees maximum mobilization of its internal reserves, a reduction of delays of construction and industrial production and circulation and an increase of accumulations on this basis.

109. Settlements with the budget, suppliers, customers, superior organization and credit relationships and also monitoring the expenditure of the wage fund and the economic-financial activity on the part of banks are accomplished throughout the industrial construction and installation association as a whole, regardless of the location of its production units.

The production unit having a current account and capital investment financing account in the corresponding institutions of banks makes settlements with suppliers, customers and contracting organizations within the procedure established according to Stroybank of the USSR and Gosbank of the USSR.

Settlements are made with the budget according to payments from profits by the organizations and enterprises themselves or can be made by the association in centralized procedure established by the ministry of finances of the USSR upon coordination with the ministry (agency) to whose system the association belongs by associations to which independent organizations and enterprises are subordinate which enjoy the rights provided by the statute on the state socialist production enterprise.

110. The industrial construction and installation association opens up pay and other accounts in banking institutions within established procedure and carries out the appropriate operations according to them.

111. The industrial construction and installation association can use bank credit and bears responsibility for purposeful use and timely return of it.

Applications for the credits required by the association are presented by them within established procedure to institutions of Stroybank of the USSR or Gosbank of the USSR and also to a superior body.

112. The industrial construction and installation association determines the norms of its own circulating funds by elements within the general norm and also establishes the norms of its own circulating funds for the production units.

113. The industrial construction and installation association supplements a shortage of its own circulating funds formed as a result of failure to fulfill the profit plan or to implement above-plan expenses financed from profits within a period of not more than three years due to fulfillment of tasks established by a superior body to receive additional profits from conducting organizational and technical measures and also due to part of above-plan profits subject to being sent for this purpose within established order and a decrease of deducations from profit to the economic incentives funds in an amount up to 30 percent.

The procedure for supplementing a shortage of its own circulating funds formed among individual production units as a result of failure to fulfill the profit plan or if there are above-plan expenses financed from profits (with retention of the overall norm of circulating funds established throughout the association as a whole) is determined by the association with regard to the fact that this shortage should be compensated primarily at the expense of the production unit in which it was formed, including at the expense of reducing the scope of the economic incentives funds allocated to the production unit in an amount up to 30 percent.

114. The industrial construction and installation association works out within limits established by existing law the estimate-financial calculations and calculations of the return of expenditures for implementation of measures to develop and introduce new equipment, new materials, on mechanization and automation of production of construction-installation work and enterprises of the construction industry, modernization of equipment, to improve production technology and for innovation and intensification of production processes.

The indicated calculations are confirmed by the chief (manager) of the association.

115. The industrial construction and installation association has the right to write off morally obsolescent and worn equipment, transport facilities, inventory and tools unsuitable for further use when restoration of this property is impossible or economically unfeasible and it cannot be sold.

The association also has the right to write off buildings and structures taken out of service with regard to construction of new objects or reconstruction and also those which have become dilapidated.

116. The industrial construction and installation association has the right to write off as a loss, with notification of this to the superior body:

bad debts of long standing;

adjudicated debts for which the executive documents were returned with an official report confirmed by the court on the insolvency of the plaintiff and the impossibility of levying claims on his property;

similar debts recognized by the association as being uncollectable.

117. The industrial construction and installation association has the right, with notification of the superior body, to write off from its balance in each individual case in limits up to 100 rubles:

shortages of valuables above the normal losses and also losses from spoilage of goods, materials and products in the case when no specific guilt is established;

debts for shortages of commercial-material valuables for penalties of which the court has refused due to lack of evidence.

118. Losses provided by items 116 and 117 of this statute can be written off from the balance of the industrial construction and installation association only after a careful check with participation of social organizations of the causes of the losses, determination of guilty parties and after adopting the necessary measures to impose penalties from those who spent the sums with regard to losses.

119. The industrial construction and installation association works out and confirms the income and estimated expense plans for housing-public services, estimate plans of expenses for economic maintenance of buildings, spaces, structures, gardens, parks and pioneer camps transferred to trade-union organizations for free use.

120. The industrial construction and installation association carries out bookkeeping, operational and statistical accounting; compiles and presents to the appropriate bodies within established procedure an official report

for all types of production-economic activity of the association by confirmed formats and within established deadlines and bears responsibility for its reliability; centralizes and mechanizes accounting-computer work and introduces progressive methods of accounting.

The association which contains production units located on the territory of other rayons, cities, oblasts, krays and republics, guarantees presentation to the statistical bodies of official reports for the main operating indicators of each production unit within the procedure established by TsSU [Central Statistical Administration] of the USSR.

121. A combined archive for storage of documents of all production units is created in the industrial construction and installation association. Archives for direct maintenance of them can be created in production units located other than the location of the association.

5. Reorganization and Liquidation of an Industrial Construction and Installation Association

122. Reorganization (merger, annexation, separation and apportionment) and liquidation of an industrial construction and installation association are made by decision of the body which is empowered to form the corresponding association.

123. If an industrial construction and installation association is merged with another association (organization), all the property rights and duties of each of them are transferred to the association resulting as a result of the merger.

If another association (organization) is annexed to the association, all the property rights and duties of the annexed association (organization) are transferred to it.

124. If an industrial construction and installation association is separated into new associations (organizations) resulting as a result of this separation, the property rights and duties of the reorganized association are transferred according to the separation act in the corresponding parts.

If a new association (organization) is apportioned from the association, the property rights and duties of the reorganized association are transferred to it according to the separation report in the corresponding parts.

125. The procedure and deadline for liquidation of an industrial construction and installation association are established by the body which made the decision to liquidate the association. The same body, without inflicting a loss for fulfillment of the state plan, should resolve the problem of the procedure for execution of concluded agreements.

The deadline for making claims against the liquidated association by creditors is established by the body, by whose decision the liquidation is carried out, but cannot be less than one month.

126. A construction and installation association can be liquidated either by a liquidation commission appointed by the superior body or by commission of this body to the chief (manager) of the liquidated association.

127. The liquidation commission or in appropriate cases the chief (manager) of the liquidated industrial construction and installation association publishes in the offical oblast, kray or republic body of the press where the association is located notification of liquidation of the association and of the deadline for application of claims by creditors. Regardless of this, the liquidation commission or the chief (manager) of the liquidated association are obligated to determine all claims of creditors of the association according to materials available to them and to inform them of the intention to liquidate it.

Claims against the liquidated association are satisfied from its property, against which proceedings may be instituted according to law.

Claims determined and announced after the deadline established for creditors to make their claims are satisfied from the remaining indicated property formed after satisfaction of determined claims and also claims applied for within the established deadline.

Claims not determined and not applied for during the liquidation deadline and also claims not satisfied from the remaining property of the liquidated association are regarded as cancelled. Likewise, claims not recognized by the liquidation commission (chief (manager) of the liquidated association) are regarded as completely cancelled or in the corresponding part if the creditors do not institute proceedings to satisfy the claims within a two-week deadline from the date they receive notification of total or partial invalidation of claims.

128. Payment of installment payments due to the liquidated industrial construction and installation association with regard to reason of mutilation or other damager to the health or for reasons of death is provided within the procedure established by existing law.

Claims and suits of citizens on compensation of damage related to damage to the health or for reasons of death and also other claims and suits of citizens not stated due to extenuating circumstances before the end of liquidation can subsequently be placed in general procedure against the superior body with respect to the liquidated association. This body may make restitution of the demand recognized by it or satisfied by a court for its subordinate association (organization or enterprise) which received the property of the liquidated association.

129. The industrial construction and installation association has the imprint of the National Emblem of the USSR (or National Emblem) of the union republic) and with its own name.

The production unit has an imprint with its own name.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

REORGANIZATION IN THE CONSTRUCTION INDUSTRY

Moscow STROITEL'NAYA GAZETA in Russian 26 Sep 79 p 2

[Article by V. Ivanov, deputy chairman, USSR State Committee for Construction Affairs (Gosstroy): "Time To Begin Reorganizing"]

[Text] Capital construction determines to a decisive degree the development of all sectors of material production, further improvement in the living standard and cultural level of the Soviet people. It is not by chance, therefore, that from five-year plan to five-year plan the amounts of capital investments in the national economy increase. Whereas during the Ninth Five-Year Plan they totaled 493 billion rubles, during the current five-year plan 621.4 billion rubles, or one-quarter more, are to be assimilated. Plans call for the introduction into operation of fixed assets totaling almost 620 billion rubles, i.e. one-third greater than the amount in the preceeding five-year plan.

This is why it is so important to achieve the greatest effectiveness of capital investments, to improve the management of labor and production in construction. The decree of the CPSU Central Committee and the USSR Council of Ministers, "On the Improvement of Planning and the Intensification of the Influence of the Economic Mechanism on the Increase of Production Efficiency and Work quality," in which capital construction assigned a prominent position, is aimed precisely at this.

The decree subsequently develops the principle on increasing production efficiency, which were developed earlier in decisions of the party and the Soviet Government and borne out by many years' practice.

Extremely important significance is attached to the requirement to ensure /plan stability/ [in bold face] which is contained in the decree. It is emphasized that the five-year plan for capital construction (with a breakdown by year) must be balanced with resources of materials, industrial and power equipment, with manpower and financial resources, and also with the capacities of construction organizations.

New planning methods are directed toward concentration of resources, accelerated introduction into operation of capacities and projects, and the reduction of the amounts of "unfinished construction." It must be borne in mind, however, that these methods will be effective only with a stable five-year plan which must be developed by customers and contractors. Additionally, high quality, stability and continuity of plan operations can be provided only if the USSR ministries and departments, union republic Council of Ministers expeditiously formulate lists of all construction projects included in the five-year plan and also lists of operating enterprises slated for renovation and reequipment with an indication of the dates of completion and introduction into operation of fixed assets.

The role of title lists is growing significantly. For greater coordination of customer and contractor plans in the drafts of title lists, the volume of operations must be distributed by year by the ministry-clients in cooperation with the contractor-ministries (or on their instructions with the organizations subordinate to them). Such a procedure will enable the builders to compile plan drafts for contract work with consideration given the entire complex of faciltiies under construction for each region. Mutual work on the title lists will provide the opportunity to project the load for construction organizations for the entire five-year plan, proceeding upon the necessity for a stable, even rhythm and effective utilization of natural resources. No less important is that construction ministries and departments could simultaneously draft mutually coordinated plans for the development of general construction and specialized organizations and their production bases in specific regions. This also would ensure the fulfillment of plans for the five-year period.

The decree envisages a conversion to settlements between contractors and customers for fully completed enterprises which have been released for operation, start-up complexes, sections and projects ready for production and the rendering of services. Such a procedure is primarily called upon /to orient thsoe participating in construction toward the achievement of final national economic results/ [in boldface]. In addition, settlements for finished construction production will, to a significant degree, promote stability of the plans and limit dispersion of assets among many projects. The economic mechanism must operate in the same direction through the system of financing expenditures for unfinished construction.

In reviewing the financing of expenses for unfinished performance of construction and installation operations as a subsystem of the total economic management mechanism in our sector, it is not difficult to establish that, having transferred the funds freed for this purpose to the bank, the customer practically is not connected with the contractor by financial relationships before the completition of construction and release of the project for operation. The contractor will receive credit at the bank within the limits established for him for construction and installation work, which are determined for each construction project for the five-year plan.

A fundamentally new thing in the improvement of planning of capital construction is the introduction of improved indicators which constitute the basis for evaluation of the operations of ministries, departments, enterprises, and organizations. Deficiencies of the existing system of indicators are well known, therefore we can simply confine ourselves to mentioning them.

Evaluation of customer and contractor activity currently is significantly dependent upon fulfillment of the plan according to general cost indicators, which is does not involve the final national economic result--the introduction of production capacities and projects into operation.

The new system of indicators for the plan of capital construction, according to which the operations of contractor organizations and customers must be evaluated, does not include the amounts of construction and installation work and capital investments. Moreover, the limits discussed above are established. /The chief indicator of the plan will be the introduction into operation of capacities and projects/ [in boldface], which is expressed in physical measurers. The cost indicators following from the final results of construction will be: for customers--introduction of fixed assets into operation, and for contractors--volume of commodity construction production (the value of construction and installation operations performed at projects introduced into operation, and the value which constitutes a portion of the value of fixed assets, which was created by the builders).

With such conditions, production resources can be more fully utilized, and actual prerequisite conditions are created for reducing the amount of unfinished construction. The indicators for introduction of projects and capacities into operation, of commodity construction production, and also the limiting of the volumes of operations compel the contracting organizations not only to concentrate attention on construction starts, but to also conserve resources.

Another important evaluation indicator is /the assignment on the increase of labor productivity/ [in boldface]. Currently, labor productivity is determined by the fulfillment of an amount of construction and installation work in value terms (in rubles) per worker.

The chief shortcoming of this indicator is that it is very strongly affected by the materials-output ratio, that is, the more materials the builder uses and the more expensive they are, the better it is for the organization.

Searches for a new indicator eliminating the influence of past labor volume (in the form of material costs) led to the conclusion that planning of labor productivity according to net production was more correct than according to the estimated cost of construction and installation operations. The net production, which is the estimated expenses for wages and the estimated rate of return (plan accumulations), also is a value indicator. However, in this case estimated expenditures for materials are not taken into consideration.

In order to convert to planning of labor productivity based on the net production, it is necessary to prepare a standard estimate base. USSR Gosstroy in conjunction with construction ministries is conducting work in this direction, preparing a base for gradual conversion during the 11th Five-Year Plan for net (normative) production. The use of another indicator, which would more exactly reflect changes in the expenditure of labor, which was envisaged by the CPSU Central Committee and USSR Council of Ministers decree, is also possible. Here above all it is necessary to mention the indicators in physical measurers, which are employed in housing construction combines and organizations engaged in laying supply mains and other linear installations.

The next evaluation indicator is /the profit/ [in boldface]. It helps to intensify the influence of the economic mechanism on the improvement of the production efficiency and work quality. This is in direct accordance with the party policy further developing cost accounting. Cost accounting methods currently are employed in a number of republic ministries and several main construction administrations. The first to implement a reorganization of this type was the Belorussian SSR Ministry of Industrial Construction, in 1976.

These organizations converted to full self-supporting status for all plan expenses. The profit from production operations (which is left at the disposal of the ministries and main administrations) became the sole source for satisfying their requirements for developing their own production base, the introduction of scientific and technical achievements, economic incentives and other plan expenses. It is patently obvious that the experience of the participants in the Belorussian experiment will be of great service during the course of the upcoming economic reorganization.

The CPSU Central Committee and USSR Council of Ministers decree envisages /an increase in the level of territorial planning/ [in boldface]. It was established that USSR Gosplan submit to the USSR Council of Ministers simultaneously with its draft plan for capital construction plans for contract operations with their distribution by ministry-contractor and the selection of regions of concentrated construction. This important provision will eliminate currently existing distortions, where the volume of contract operations, which exceeds the achieved volume by 30-40 percent and is not backed by the capacities of the construction and installation organizations, is being planned in some rayons.

The decree defined a system of measures aimed at /ensuring the planning of existing production and of capital construction as a single unit/[in boldface]. To this end, provision is made to allocate capital investments for the planned growth of the output volume. The basis for the allocation of capital investments will be balances for the utilization of production capacities at operating enterprises, consolidated plans for their re-equipment and renovation. The construction of new enterprises would be permitted only in those instances when the needs of the national economy for a given type of product cannot be satisfied by existing production capacities.

Retooling and renovation significantly increase the effectiveness of capital investments, reduce their relative amount per unit of capacity. In addition, modernization of operating enterprises enables significant reductions to be made in the periods required to create capacities and to assimilate them.

As practice demonstrates, the expansion of operations or renovation and retooling in a number of instances is being delayed by a lack of interest on the part of the builders. Actually, conditions for the performance of operations on renovation are, as a rule, quite complex, the result being that the construction organizations are incapable of ensuring the fulfillment of certain economic indicators. In this connection, the decree envisages a number of incentives for the expansion of operations on renovation and retooling.

With allowance for the complexity of renovation, correction factors are introduced for existing estimate norms for construction and installation operations and for norms of overhead expenses. The payment of bonuses to this time has not been employed for the fulfillment of work on retooling of existing enterprises, although it was done in effect for renovation. The decree applies this rule also to operations on retooling. Bonus funds will be included in the estimates, and their expenditure for other purposes is prohibited.

Conversion to the new methods of management requires orderly and highly organized preparatory work not only of the central departments and ministries but of local organizations and enterprises. Now it is most important in the shortest of time to formulate all the necessary methodological and instructional documents ensuing from the provisions of the CPSU Central Committee and USSR Council of Ministers decree. Work in this direction is now underway, some provisions are now in force, particularly in the drafting of the plan for economic and social development for 1980.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

CAPITAL CONSTRUCTION PLANNING, MANAGEMENT PROBLEMS

Moscow STROITEL'NAYA GAZETA in Russian 18 Jul 79 p 2

[Interview with Doctor of Economic Sciences Professor Arkadiy Ivanovich Mitrofanov, director of the Scientific Research Institute of Economics of Construction, by A. Kuznetsov and S. Volkov: "Is It Awful to Reject the Old?"]

> [Text] Over the past half year STROITEL'NAYA GAZETA has conducted a discussion under the heading "Were It In My Power...," publishing the views of economic managers, specialists, and readers on improving the economy and organization of capital construction. The editors invited A.I. Mitrofanov, director of the NIIES, to participate in that discussion.
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> The plan of the Scientific Research Institute for Economics of Construction (NIIES) of USSR Gosstroy for 1979 contains 62 themes relating to the main directions of the development of capital construction. Although the volume of the adoption of institute developments has risen by approximately one-third as compared to last year, the recommendations aimed at cardinally improving the economics and organization of construction are presently being timidly implemented.
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> The statement of this fact began the discussion between STROITEL'NAYA GAZETA correspondents A. Kuznetsov and S. Volkov and the director of the NIIES, Doctor of Economic Sciences Professor Arkadiy Ivanovich Mitrofanov.

[Answer] The level of adoption is being maintained somewhere at the level of the institutes of our type. The effectiveness is rather high--every ruble expended for research is recouped more than six-fold.

[Question] The situation that has developed in the sector cannot be termed propitious. Is that not so? Therefore can we not structure the discussion thusly: to address the vital problems as though the studies of economists were used to resolve them?

[Answer] Agreed. However, I must immediately note that this is self-deception, a vexing delusion, when attempts are made to solve a certain problem in an isolated manner. Half-hearted efforts do not result in decisive successes. Therefore, we will discuss the resolution of the complex of economic problems in construction.

One must start with planning. The contractor must be provided a real, balanced and stable plan, which is not being done yet. Science and practice suggest the real way--the Orlov method of continuous two-year planning.

Unfortunately, the attitude toward the Orlov method has been cool, to put it mildly. The two-year plan is now recognized by many USSR Gosplan employees and economic managers as a forced measure, totally relying upon the stable five-year plans. But is it possible to create in capital construction such an indestructible program? Let's face the truth squarely--in our sector this has not happened, and it is doubtful that it will in the next ten years.

[Question] Obviously, it would be logical to broach the matter of capital investments planning. We know that your institute is not undertaking efforts in this field, but you could perhaps, speak as an economist?

[Answer] I will take the liberty to express my personal viewpoint, which supported by information which I have at my disposal.

The existing procedure for planning of capital investments has created and is reproducing the conditions under which the customer has the right to disperse collosal funds at his discretion, at times even contrary to adopted plans. Such examples abound to the extent that one can speak about a large-scale phenomenon. Ministries and department-customers redistribute capital investments (this is one of the reasons for five-year plan instability!), at times disorganizing the operations of builders and suppliers.

The 25th CPSU Congress set the task: to radically change the procedure for planning capital investments and to distribute them for the increase of production for the customers, which is stipulated by the program. There is also a requirement to combine capital construction planning with production planning.

I am sure that such a procedure would force us to search for reserves to increase production output at existing capacities, but not to achieve the start of new construction on one's own. I believe that then the economic managers would be forced first of all to concern themselves with increasing the scope of and accelerating the rate of retooling and renovation of operating enterprises. Currently the share of capital investments in these operations totals, according to our estimates, not more than 25 percent.

[Question] But the Central Statistical Administration provides higher figures for expenditures for renovation.

[Answer] The sums which also include expenses for the expansion of production capacities appear in the reporting data. They get the lion's share! The second and third sections of works are being built, but all expenses are for a single item.

To achieve the requisite order in the organization of planning and to solve the tasks set by the 25th CPSU Congress in a business-like way, we must alter the capital investment planning practices. It is apparent that those specialists are correct who propose placing limits on capital investments with the right to utilize those investments only when the customer must settle with the contractor for projects, capacities and start-up complexes which have been placed into operation.

[Question] This is, the customers must purchase finished construction production from the contractor?

[Answer] Yes. The customers must deposit funds in a special bank account for the project which is to be built. The contractor, after receiving the money, can settle with his suppliers and with the bank for credits extended him.

Using such a capital investment planning set-up, the main condition which makes it possible to disperse is completely eliminated.

The customers, for quite understandable reasons, are not receptive to this. The contractors also are not too eager to replace free financing with credit. After all, this directly involves the strict observance of construction deadlines and penalty sanctions in the event they are not met.

[Question] Having changed the planning procedure, this would undoubtedly necessitate the revision of the indicators subject to approval and the estimated indicators?

[Answer] This must be done concurrently. The time for establishing a unified system of evaluators arrived long ago. Currently, the contractors have their plans, and the customers--theirs. The plan must direct the interests of all participants toward a single goal--the introduction of capacities and fixed assets into operation. A new sytem of indicators is needed precisely for this.

True, a very acute problem for the builders is concealed here. They cannot and are not prepared to answer for the introduction of a significant portion of fixed assets (for equipment, its installation and so on). The builders state: "Our business is construction and installation work!"

[Question] And they are correct, generally speaking. What solution is proposed by the economists?

[Answer] Initially, a palliative. In the assignments for the introduction of fixed assets for the customer, the construction and installation operations, that is, the indicator constituting commodity construction production, are singled out. However, this proposal is met with opposition on the part of the ministry-customers.

Commodity construction production, as is well known, is one of the cornerstones for the Belorussian complex economic experiment, in the preparation of which, by the way, the NIIES took part. The planning of this indicator is strictly mandatory for only the contractor. Customers, alluding to planners' shortcomings and the limitations of allocated resources, change the composition of start-up complexes, which serves as an explanation for them as an explanation for the impossibility of using this indicator. Gosplan, whose responsibility includes the implementation of the method of planning commodity construction production, is failing to insist that customers employ that method.

Continuing the conversation on indicators, I cannot fail to mention unfinished construction. We are accustomed to being concerned (and justifiably so) about its growth. However, what is this indicator? Try to establish the state of affairs in construction using this indicator and you will find that it is not related to forthcoming introduction of projects into operation, with construction under way, with its availability, with concentration of efforts and assets and so on. One can only be surprised as to why neither planners or economic managers are focusing their attention on this!

In our opinion, to obtain an accurate picture, it is necessary to plan indicators for construction starts and readiness of construction underway. "Incomplete" construction, which currently hypnotizes us all, should either be abolished or, at best, be left as an analytical indicator. Nothing more! Then the volume of unfinished construction will establish itself, in the volume and at the level that the availability of standard construction under way and its readiness required.

However, the proposals of the economists are not being met with understanding on the part of economic managers. They explain their reluctance to introduce the indicators for construction under way and its readiness by the inadequate preparation of technical documentation.

[Question] This is not without reason, of course?

[Answer] It goes without saying! But after all, order must be and can be brought to planning. See what the situation is: of the vast amount of funds invested in unfinished construction, approximately 9 percent are expenditures for design and surveying work, which would, incidentally, have sufficed for the provision of construction at current scales for approximately four years. However, many construction projects have not been provided with a full complement of documentation!

An explanation must be sought in the existing practice of design and surveying work, which is not properly connected with the plans for capital construction, and to a greater extent with long-term plans. Design institutes do not have five-year plans at all. Now, it is true, the decision has been made to draft them, but what will result, only time will tell. I am doubtful of the total success of this undertaking, as the work is being conducted in isolation from other problems of capital construction.

[Question] However, let us return to indicators. How can you explain the reluctance on the part of planning and economic organs to use the recommendations of scientists?

[Answer] One can draw an analogy with computers. After general enthusiasm for them, a certain sobering effect set in. When it became clear that computers demand an extremely stringent approach, extensive preparatory work and complete initial data, it was either rejected entirely or was used in a very limited manner (as was the case in planning).

Approximately the same situation has also transpired in the use of several achievements of economics. Institutes and the best construction organizations have developed a great number of interesting innovations. But those must be implemented in a comprehensive way! Why do certain experiments progress with great difficulty, for example, the Belorussian experiment? Because they are not carried to their conclusion. The Belorussian Ministry of Industrial Construction was face to face with a most complex reorganization of all planning and economic operations. The customers dropped out of the experiment completely. Gossnab did not rush to assist. Gosplan adopted the role of an observer in many questions.

[Question] Can you touch upon, if we have exhausted this question, the matter of improving the system of material and technical supply?

[Answer] If we expand the question, we must see to it that the system of material and technical supply becomes not an intermediary, but a management organization for supply of complete sets of equipment, which operates on cost accounting principles.

In a single interview, naturally, it is impossible to cover all the problems involved in improving capital construction (I did not, for example, touch upon the developments of NIIES in the field of the structure and organizational forms of management, in which we have several achievements), I will emphasize only that science stands ready today to propose a number of developments the adoption of which would radically improve this matter. Only, I reiterate, they must be adopted in a comprehensive way.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

IMPROVING MANAGEMENT IN THE CONSTRUCTION MATERIALS INDUSTRY

Moscow STROITEL'NAYA GAZETA in Russian 25 Jul 79 p 3

[Article by A. Rezchikov, head of a department of the Central Scientific Research Institute of Economics attached to RSFSR Gosplan: "A 'Prospector's' Passions"]

> [Text] STROITEL'NAYA GAZETA devotes considerable attention to the problem of improving management methods in the construction materials and elements industry. Valuable proposals directed toward improving organization and management of the sector have been offered in L. Makhalov's "Eliminate Non Metallic Shortages", S. Yakubanets' and S. Il'itskiy's "The Sector Must Become A Sector", and S. Yazykov's "Ways to Establish Associations" and other authors' articles, which we have published in recent years. In the article published below, we continue a discussion of a pressing topic.

More and more major highly mechanized and automated enterprises are appearing in the construction industry and construction materials industry. However, along with them minor plants, works and quarries are still being established, which employ obsolete, and, at times, simply primitive technology. There are thousands of these "manufactories" in the sector. In the RSRSR, of 14,000 construction materials enterprises, only 2,000 operate on independent balances. In the cast reinforced concrete industry, more than 40 percent of the plants have capacities of less than 25,000 m^3 a year. Labor productivity at those plants is two-fifths that of the major enterprises and the capital-labor ratio is one-half that of the major enterprises. The quality of the output is far below that required.

Naturally, there is no need to talk about any sort of efficiency for such enterprises. Their managers justify the appearance of these plants and works because of the shortage of reinforced concrete items, rock products, finishing materials, bricks and so forth.

Who are these managers? In the RSFSR alone, more than 50 ministries and departments, primarily not of construction specialization, are engaged in the production of construction elements and materials. For example, in the Yaroslavskaya Oblast, in addition to plants of the USSR Ministry of Construction, reinforced concrete is produced by enterprises of the Ministry of Railways (6,600 cubic meters) and the Ministry of Communications (900 cubic meters). A similar picture exists also in other regions of the country. Union and union republic ministries of light industry, culture, trade, health serve as miners of sand and gravel and manufacturers of reinforced concrete structures. Throughout the RSFSR as a whole the share of the RSFSR Ministry of Construction Materials is only 13 percent of the production of rock products and 57 percent of wall materials.

The "prospector" aspirations of various ministries and departments do serious damage to the development of the construction materials industry. They impede the planning of the production of materials and components, the following of a unified technological policy, hamper the accomplishment of the specialization and concentration of the industry and add additional difficulties to the transportation of raw materials and finished production. For example, from the Volga River regions various departments transport 11 million m^3 of rock products, while 16 million m^3 of the same materials are brought in.

An analysis made by several scientific organizations of the current situation in the construction materials industry and construction industry indicated that there is a reliable means available to curtail the expansion of these dwarf plants and, hence to improve the efficiency of the sector. This is the concentration of the construction materials and components industry. The problem, let us be blunt, is not a novel one, it has been discussed many times in the press, but the matter is progressing extremely slowly. However, there exist great reserves here.

For example, if such a concentration were carried out in that same Volga River region, then, as Soyuzgipronerud considers, the annual output of rock products there would increase by 7 percent and costs would drop by 4 percent. If one considers that approximately 70 million m^3 of rock products in the RSFSR are transported over 600 km, the elimination of nonrational transportation will also yield noticeable results.

The combining of enterprises of the same type will make it possible to develop mineral resources in a comprehensive manner, to specialize crusher-sorter plants, to establish production lines, producing specific types and fractions. This will help in raising the level of technical equipment for enterprises to more fully utilize their capacities and to improve all technical and economic indicators.

To confirm this, the following facts may be cited. In the RSFSR there are approximately 30 deposits of rock products, where more than 60 enterprises from various departments extract raw materials. In just Rostovskaya Oblast, at the Bogurayevskiy, Zamchalovskiy, Ayutinskiy and Zhirnovskiy deposits, quarries of rock products belonging to 15 ministries are in operation. Output per worker at such enterprises ranges from 4,000 to 17,000 rubles, the output-capital ratio ranges from 0.31 to 1.24 rubles, and profitability from 1.8 to 36.4 percent. At each enterprise, irrespective of its size, there are an administrative staff and supplementary-auxiliary services (repair, transportation, loading-unloading, economic and others). According to data of the All-Union Scientific Research Institute of Nonmetallic Construction Materials and Hydraulic Mechanization, just the combination of 62 similar type enterprises of various departments working 27 deposits would yield a growth in the output by 4.4. million m^3, and in labor productivity by 6 percent and reduce the production cost of rock products by 2.5 percent.

Departmental separation results also in irrational, incomplete utilization of natural resources and does not make it possible to effectively implement nature conservation measures. The Iset' Gravel Plant of the Ministry of Railways could produce building sand from its tailings, which is direly needed by Sverdlovskaya and neighboring oblasts. The Ministry of Railways, however, is interested only in gravel.

In several ministries the advantages of concentration are recognized, but the solution of the problem is deferred to the distant future. Other ministries, particularly the USSR Ministry of Construction, the Ministry of Transport Construction, the RSFSR Ministry of Housing and Municipal Services and the Ministry of Railways, do not consider this expedient at all.

Concentration is needed. Only what sort? Is it necessary, for example, to concentrate the entire construction materials industry in a single ministry, in particular, the USSR Ministry of the Construction Materials Industry? Hardly. There is another way. It is a fact that a given construction department in its activity gravitates to a particular area of the country and thus has there a good base for construction. Apparently, such a ministry should be the manager of the sector in that region. But how to supply rock products and structures to construction projects of other departments and to organize relationships with them--this, so it is said, is a matter technology....

Of course, it is difficult psychologically to decide upon the combination of enterprises: suddenly you are left without reinforced concrete or gravel. But such a step is necessary. The interests of the sector and of the entire economy require it.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

CONSTRUCTION PROBLEMS IN CONSTRUCTION MATERIALS INDUSTRY

Moscow STROITEL'NAYA GAZETA in Russian 16 Nov 79 p 2

/Article by "Observer": "The Situation at the Priority Projects"/

/Text/ Enormous assets are being invested annually in the development of the construction industry. In three years of the 10th Five-Year Plan for the USSR Ministry of the Construction Materials Industry alone 3,451,000,000 rubles of capital investments and 1,822,000,000 rubles of construction and installation work were assimilated. During this period the capacities for the production of cement increased by over 10 million tons a year, soft roofing--220 million m^2, roofing shingles--165 million conventional tiles and so on.

The construction workers and clients have successfully coped with the placement into operation of production lines for the production of cement in Spassk-Dal'niy of Primorskiy Kray. General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet L. I. Brezhnev noted their dedicated labor in his message of greeting. This year the construction of the facilities of the Timlyuyskiy Plant of Asbestos Cement Items in Buryatia and other enterprises is proceeding successfully.

But on the whole the plan of 10 months for the USSR Ministry of the Construction Materials Industry has been fulfilled by only 81 percent. The introduction of capacities for the production of 140 million conventional tiles of roofing shingles at the Yashkino Cement Plant has been upset. More than 150,000 m^2 of housing have not been put into operation.

The leading contracting ministries--the USSR Ministry of Construction of Heavy Industry Enterprises, the USSR Ministry of the Construction Materials Industry, the USSR Ministry of Construction--differ little from each other in the indicators of work at the projects of this sector. For the 63 most important construction projects of the construction materials industry the average degree of provision with workers is slightly more than 50 percent, with precast reinforced concrete--about 70 percent, with metal components--80 percent.

The shortcomings of these construction projects are typical--excessively long construction periods of projects, the turning over of enterprises with flaws in workmanship, which do not make it possible to reach the rated capacity quickly, a lag in the introduction of housing. Whereas on the average for the country the standard periods are being observed at 30-35 percent of the projects under construction, for the USSR Ministry of the Construction Materials Industry this indicator is considerably lower. And the amount of unfinished construction is considerably higher than the average for the country. Even today it has reached nearly 1.5 billion rubles with an annual plan of capital investments of 1,192,000,000 rubles and construction and installation work of 625 million rubles.

The Novoaltaysk Paper and Roofing Felt Plant with a standard duration of construction of 49 months has been under construction already for 106 months, and the end is not in sight. Various equipment worth 6 million rubles "has been drawn out of circulation." Due to the excessive duration of construction the plans of a number of projects have been revised more than once, as a result of which the composition of the structures and their cost have changed somewhat.

The SM-486 B roofing felt unit is obsolete, and the delivery of the SMA-184, the series production of which has only begun, is planned for 1979. Tens of thousands of rubles have been spent on the repair and reconditioning of disassembled equipment. The group of the so-called operating enterprise, which was set up at the plant at an earlier time, in two years has overspent more than 100,000 rubles on the maintenance of equipment.

The annual fulfillment of construction and installation work, staring in 1971, has not exceeded 9 percent of the total estimated cost. And only since the second half of this year did they begin to concentrate the additional number of people, and by September increased the number of workers from 250 to 550. But due to the great lag more than 1,000 of them were already required.

Apparently, the regular assurance of manager of the Novoaltaykstroy General Contracting Trust, P. Kashlakov, on placing the line for the production of roofing paper into operation in December had a calming effect. But it is in vain. Having performed construction and installation work for the entire site in the amount of about 2.5 million rubles, construction and installation work in the amount of 1 million rubles has not yet been done on the main building alone.

In the construction of the plant for the production of 60,000 m^3 of reinforced concrete stand pipe a year in Tulun of Irkutskaya Oblast 70 percent of the amount of construction and installation work and 50 percent of the capital investments have been assimilated in 8 years. Not one of the structure has been turned over for installation. Technological equipment worth 1.7 million rubles is lying in the warehouse. The production of pipe at one time was planned on the basis of the latest achievements of science and technology, but year after year pass, and by the time of the start-up it will already be the past of the sector.

The extensive reclamation of the Nonchernozem Zone cannot be fully accomplished without the fiber glass matting of the Skopin Glass Plant, whose placement into operation is planned for the fourth quarter of this year. But less than 60 percent of the capital has been assimilated. Trust No 4 of the Ryazan'stroy Association of the USSR Ministry of Industrial Construction (A. Garbuzov, manager) has understaffed the project by 500 workers. Today the delivery of reinforced concrete and metal structures has not been completed, and what is available is being installed with a delay.

At times after the recurrent violation of the deadlines for turning over projects some managers resort to cunning. They turn over abbreviated complexes, are rebuke for placing them into operation and lose all interest in the subsequent fate of the enterprise. And after this the output volume, which is stipulated by the plan, is not attained there for years.

That is how L. Kucheyev, chief of the Bryanskstroy Construction Administration, acted when expanding the Bryansk Cement Plant. Of the 36 start-up projects, which belong to the second production line of the new works, 16 were not accepted by the working commissions. In all flaws in the amount of 1 million rubles existed. Nevertheless, on 30 March 1978 the construction workers convinced G. Deynek, general director of the Bryansktsement Production Association, to accept the complex for operation. The state commission was assured that all the flaws would be eliminated in two or three months. But so far only a fourth has been accomplished.

The joint orders and decisions of the collegia of the USSR Ministry of the Construction Materials Industry, the USSR Ministry of Construction of Heavy Industry Enterprises, the USSR Ministry of Industrial Construction, the USSR Ministry of Construction and others on expediting the work in practice have not brought about cardinal changes. This year not one construction project has been turned over on the planned date. At the most important construction starts of the sector alone there is a shortage of more than 11,000 workers, 25,000 m^3 of reinforced concrete items and 5,000 tons of metal structures. Given this state of affairs, the lag in the development of the construction materials industry will inevitably lead to a slowing of the rate of assimilation of capital in other directions of the national economy. And the important strategic task of the priority development of the base is not yet being fulfilled.

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CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

BELORUSSIAN SEMINAR ON CONSTRUCTION EFFICIENCY, QUALITY

Minsk SOVETSKAYA BELORUSSIYA in Russian 29 Sep 79 pp 1-2

/Article by O. Vengerenko and A. Gorbachev (Brestskaya Oblast): "Rear Units or the Front Line?"/

/Text/ All our achievements in strengthening the economy and assuring the constant increase of the cultural level and well-being of the Soviet people largely depend on the level of development of construction and on the state of affairs in this leading sector of the national economy. That is why at the November (1978) CPSU Central Committee Plenum the problem of improving capital construction was assessed as a vital and central problem.

The construction workers of our republic have done much on implementing the decisions of the 25th CPSU Congress. During the 10th Five-Year Plan they have performed construction and installation work worth 8.6 million rubles, have assimilated about 15 billion rubles of capital investments and have provided an increase of fixed capital by 12.9 billion rubles. And all the same the construction workers are still not working up to their capabilities and have not achieved the main thing--the considerable shortening of the construction periods of projects, a high growth rate of labor productivity and the radical improvement of work quality.

Republic seminars on construction are actively furthering the search for ways to solve these problems. The present seminar, the third in number, as was already reported in the press, was held on 21-22 September in Brestskaya Oblast. It was devoted to an urgent problem--the increase of construction efficiency and quality on the basis of a high level of plant readiness of construction materials, items and components.

According to established tradition the enterprises of the construction industry and the bases of contracting organizations are called the rear units of construction projects. Without a reliable rear, of course, it is impossible to count on success. This is common knowledge.

But does this definition meet the requirements of today? No, it does not--the seminar participants had seen this for themselves. At present it is impossible to talk seriously about the increase of the efficiency and quality of construction without its further industrialization on a qualitatively new basis. It is possible to achieve this only by transferring the main construction operations to plant conditions. The construction project should become an installation site, where the assembly of buildings and structures out of finished consolidated parts and blocks should be carried out quickly, using the rich arsenal of machinery and accessories. As we see, the plant shops and the bases of contracting organizations are now becoming to a greater and greater extent the determinant, decisive party in construction, its front line.

Priority Development for the Bases

"Last year by means of the containerization of cargo alone we reduced the labor inputs by 45,000 man-days"--honestly speaking, it was hard to believe immediately this figure, which was cited by Chief Engineer of Brest Construction Trust No 8 N. Ya. Sereda for the conference participants.

But all the doubts were dispelled as soon as we were at the warehouse yard of the Administration for the Supply of Complete Sets of Production Equipment. Instead of the chaotically scattered piles and heaps of components, brick, lumber, tiles and so on, which are so typical of many such warehouses, before us neat containers and packages with the most diverse materials were lined up in even rows, as if at an exhibition.

"This, of course, is good, convenient and advantageous. But where did you get so many different containers? Who produces them? Where?" the questions were showered.

"We made them ourselves. Here, at the base," N. Ya. Sereda responded.

But the production base of Construction Trust No 8 is famous not only for this. Their main pride is the shop for the processing and increase of the plant readiness of items and materials. Mechanized works have been created here for the preparation of paints and spackling compounds, the cutting of floor edging and runners, linoleum, glass, roofing shingles and asbestos cement pipe, the finishing of woodworking items, the cutting and fabrication of components made from galvanized steel, the crushing, washing and grading of marble dust. Small links (2-4 people) work in each of these shops or subdivisions, but they perform an important task--they are increasing the quality of items and, what is the main thing, have released about 2,000 people from complicated manual operations at the projects.

The trust also has a convenient modern mechanization base. Incidentally, all this was created mainly at the expense of the assets allocated for temporary structures.

They are not content here with what has been done. Much of what has been contemplated has not yet been brought to a logical conclusion, but the Brest people have a clearly defined goal and, it must be assumed, they will achieve it.

Not by chance did we begin our remarks with this example. The powerful production base of contracting organizations on a modern technical basis is a reliable guarantee of an increase in labor productivity, the uninterrupted supply of the projects with complete sets and their timely placement into operation.

Unfortunately, as yet only a handful of trusts and primary construction organizations have production bases which if only to some extent have met the current demands. Meanwhile, solely due to the fact that at present the minimum of operations on increasing the plant readiness of items are not being performed at the bases, the construction workers are losing more than 1.5 percent of the increase of labor productivity. At the Belorussian SSR Ministry of Industrial Construction, for example, half of the floor edging, runners and linoleum and a third of the window glass and galvanized steel arrive at the projects without preliminary cutting, preparation and adjustment. Only 26 percent of the bulk materials, 25 percent of the floor edging and 12 percent of the carpentry items are delivered in containers.

Strange though it may seem, it was emphasized at the seminar, the construction ministries and organizations are displaying a lack of development and even irresponsibility in this important matter and are not meeting the demands of the Central Committee of the Communist Party of Belorussia on the need for the priority development of the bases. Thus, in eight months the assignment on the construction of the base of the Belorussian SSR Ministry of Construction and Utilization of Roads was fulfilled by only 61 percent, the Belorussian SSR Ministry of Industrial Construction and the Belorussian Interkolkhoz Construction Organization--respectively by 96 and 88 percent. The bases of the Belorussian SSR Ministry of Industrial Construction in Vitebsk, Gomel', Svetlogorsk, Minsk and Grodno are being built extremely unsatisfactorily. A great lag is being allowed in the building of the most important capacities of the Belorussian SSR Ministry of the Construction Materials Industry, especially at the construction materials plant in Minsk, the granite facing tiles plant in Mikashevichi, the Smorgon'silikatobeton Production Association and the Krichev Cement Roofing Shingle Combine.

Moreover due to the lack of control on the part of Gosstroy and the construction ministries the bases are now being planned and built at times according to long obsolete canons. The following case, for example, was cited at the seminar. Belpromproyekt planned the base for the construction workers of the largest cement plant in the republic near Kostyukovichi without shops for increasing the plant readiness of items, buildings for the housing and repair of equipment and other necessary works.

The seminar participants made suggestions about the need to draft standard plans of bases for various construction subdivisions, which would not only meet today's requirements, but would also afford prospects for a qualitatively new stage in the industrialization of construction.

Industry for the Construction Projects

Construction industry enterprises have truly inexhaustible reserves for the increase of labor productivity and the improvement of the quality of construction. Even what has been done and is being done at the construction projects and enterprises of the Brest area on the output of advanced structures and materials and the increase of their plant readiness is making it possible to reduce considerably the number of people working at construction projects and to facilitate and simplify their labor.

Let us take if only the Kobrin Spinning and Weaving Factory. Universal attention was attracted by its 9-hectare building, which was erected from advanced components--girders and plates of "dinakor" box flooring, which are produced by the Mozyr' Precast Reinforced Concrete Plant, as well as centrifuged hollow columns. The introduction of these innovations made it possible to reduce the number of structural components from five to two and to decrease the number of assembly joints. The "dinakor" components, while simultaneously serving as air ducts, assumed the functions of traditional trusses, the slabs of flooring and the equipment floor, girders and overhead supports. What did this yield? The labor inputs were reduced by 13,500 man-days, in practice 50 installers were released in a year.

Centrifuged columns are not less effective. Their production has been completely mechanized, they do not require additional finishing and sizing at the project.

The use of advanced components made it possible to reduce the estimated cost of the factory by 27 percent.

The Baranovichi Reinforced Concrete Components Plant has taken up leading positions in the sector in many directions. Here the production of items made from high-strength concrete has been assimilated, the production of columns of series II-04 for 3-5 stories has been set up, conveyors have been introduced, on which the surface of the components is ground to a level which eliminates finishing at the construction project. Advanced designs, accessories and technological processes are being used extensively. Many labor-consuming operations do not go beyond the "gates" of the plant. The labor inputs at projects are being reduced annually by nearly 30,000 man-days due to this.

Now it is often possible to see tall structures not far from the livestock complexes. These are haylage towers, in the construction of which the Baranovichi Combine of Haylage Towers is engaged. A high level of prefabrication and plant readiness distinguishes the structures. All the labor-consuming operations are performed in the shops, which has made it possible since the beginning of the five-year plan to increase the labor productivity of construction and installation work by 24 percent and to shorten the construction period to almost one-third. The enterprise is now putting into production various types of storehouses of the tower type.

The industrialization of construction requires a great level of readiness of carpentry and other items made of wood. Here is an example. The painting of 1,000 m^2 of window units under plant conditions alone makes it possible to reduce the labor inputs at construction sites by 1,200 man-days. Moreover, the manufacturing of carpentry items under the conditions of mass production makes it possible to increase their quality and to protect them from moisture.

At the Baranovichidrev Association of the Belorussian Ministry of the Timber and Wood Processing Industry the mechanized cutting in of equipment has been set up, lines for the flow coating and painting of window and door units and window sills in an electrostatic field are in operation.

However, the capacities for painting items are not completely loaded. Gossnab is not allocating the necessary number of painters. Therefore, only half of the door and window units are being prepared by the advanced method. This problem awaits an immediate solution. In the immediate future all the carpentry items should be painted at one time under plant conditions--that is how the question was put at the seminar.

The production of many promising, economical materials and items has been set up in the republic. Only the rate of production of centrifuged columns, facing brick and hard-faced roofing material is increasing extremely slowly. The assimilation of the production of mineral slabs of greater rigidity and extrusion asbestos cement panels is being dragged out intolerably. For the present they are rejecting without reason at a number of places the mass use of gypsum and items made from it. Meanwhile, by means of the use of dry gypsum plaster, which has been reinforced with mineral fibers, for the interior finishing of rooms alone it is possible to sharply reduce the labor inputs and to eliminate wet processes at projects.

Or take the following example. The reaching of the rated capacities by the enterprises in Minsk and Obol', which specialize in the production of two-layer facing brick, would make it possible to release more than 500 people for finishing work.

Large-panel and modular house building is assuming a greater and greater scale in housing construction. This year alone it will be about 2 million m^2 of total floor space. However, Gosstroy and Gosplan of the republic are not devoting proper attention to the further increase of the proportion of prefabricated apartment buildings, the improvement of the formed system of house building combines and the increase of the level of industrialization at all stages of the construction process. The conversion to the completely prefabricated construction of schools, children's institutions and other facilities for cultural purposes is being accomplished slowly. The area of large-panel and modular apartment houses, which were put into operation in 1978, per 1 million rubles of construction and installation work increased as compared with 1975 by 2.4 percent, and brick apartment houses by 12 percent. This led to a decrease of output on the whole by 0.78 percent.

Serious shortcomings remain in modular house building. The development of this advanced method involves the improvement of technology, but, unfortunately, almost nothing is changing here. The modules are being produced with a low level of plant readiness. The labor and time expenditures on their "finishing" are unjustifiedly high at the construction sites, the quality of apartment houses made from modular components leaves much to be desired. However, the republic Gosstroy, the Ministry of Industrial Construction and the Ministry of Rural Construction are not taking the proper steps to correct this situation.

The seminar participants spoke about the fact that it is time to find economic levers which would interest construction industry enterprises in the production of items of great plant readiness. It is paradoxical, but at present, while improving their products and increasing their technical level, they are incurring material losses.

On the Shoulders of Machines

At this seminar it was not specifically planned to examine the problems of mechanization and the introduction of advanced tools. The seminar last year was devoted to this. Nevertheless, today these questions were in the field of vision. At the construction industry enterprises of the Brest area much is being done to increase the level of mechanization and the technical equipment of production. The seminar participants also acquainted themselves with the exhibitions, which had been opened at subordinate enterprises and organizations of the corresponding ministries. They all aroused deep, lively interest.

Thus, at the large-panel house building plant of the Brest House Building Combine a conveyor for the plastering of interior wall panels and the panels of ceilings has been set up and is being successfully introduced in production. Its productivity reaches 10 m of effective surface per minute. The proposed efficiency is the release of 20 people employed at the construction project. The collectives of the Baranovichi Reinforced Concrete Components Combine and the Kobrin Special Mobile Mechanized Column No 129, other enterprises and organizations demonstrated many things of interest, which people of inquisitive thought can do.

But when will the machines, devices and accessories, which have been created by the hands of enthusiasts, appear at the construction projects and the enterprises? For the executives of the construction ministries, departments and organizations are fulfilling extremely slowly the recommendations of last year's seminar, although the provision of construction projects with standard sets of tools for the performance of masonry work is only 48 percent, concrete work--47 percent, carpentry work--27 percent, plastering--66 percent and painting--61 percent. For this reason the labor productivity of masons is decreasing 6 percent, plasterers--7 percent, painters--5 percent. The republic machine building enterprises last year fulfilled the assignments given to them on producing advanced mechanization equipment by only 64.5 percent.

It is time, at last, it was noted at the seminar, to completely fulfill the outlined program on the supply of all brigades with standard sets of tools, accessories and means of small-scale mechanization. Here the republic Gosstroy, Gosplan and Gossnab, the construction ministries and departments should have their say.

On the Basis of Science and Technical Progress

Having acquainted themselves with individual developments of scientific research and planning and design organizations, which are being introduced in production, the seminar participants gave credit to their contribution to the industrialization of construction, the development of new effective materials, components and technological processes. At the same time they, especially the representatives of contracting organizations and enterprises, lodged many just complaints against scientists, designers and planners, who frequently do not approach comprehensively the solution of the problems advanced by life, lag behind practice and at times even hold back technical progress.

About what increase of labor productivity is it possible to speak, if in the new plans technological processes are stipulated, which can be performed only manually? Thus, it is planned to make the walls and partitions in many plans out of brick instead of components which have proven themselves to be good. Annually, for example, in the republic of the 3 million m^2 of partitions 62 percent are made from brick and other materials which come in small pieces. The enterprises have now put into production many different effective finishing materials, but the designers plan in the old way, as a rule, wet plastering. In Molodechno a light-weight metal structures plant has been built, but they are not being used at the construction project--once again there are no plans.

The Belorussian SSR Gosstroy is not yet coping with the functions of a coordinating center, which were assigned to it, it was noted at the seminar, on expediting scientific and technical progress in the sector.

In a report at the 19th Plenum of the Central Committee of the Communist Party of Belorussia Comrade P. M. Masherov stressed: "Much, very much has to be done with the aid of science in order to raise construction to a qualitatively new level and to overcome the lag of this sector.... The solution of numerous problems of construction, architecture and urban development requires energetic scientific support, the thorough scientific, planning and design and economic study of all the components of the increase in the efficiency of capital construction. The matter needs to be organized in such a way that in all instances the programs of capital construction would be based on the plan of scientific and technical progress and would be its continuation, its materialization in products and fixed capital." In order to achieve this goal the Belorussian SSR Gosstroy, the ministries and departments, scientific research and planning organizations must resolutely reject the customary, obsolete methods of work and immediately shift to practicable, large-scale measures, which are aimed at increasing construction efficiency, must solve comprehensively the problems on reducing manual labor and developing new materials and components of a high level of plant readiness. The party organizations and committees are called upon to use the entire arsenal of methods and means, as the 19th Plenum of the Central Committee of the Communist Party of Belorussia demands, for coordinated influence on all stages of the science-production cycle. Science should open the widest path for advanced practice and be its reliable basis.

Now that the seminar participants have returned to their collectives, it is important to report to each one the recommendations drawn up in Brest and to elaborate precise measures on their universal and complete implementation. The party committees and organizations must take this important matter under their control and discuss extensively at party and workers' meetings, production conferences and scientific and technical conferences the problems of developing the production bases, increasing the plant readiness of products and reducing manual labor. The advanced know-how, which was generalized at the seminar, should become accessible to all in the shortest possible time.

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CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

LATVIAN ARCHITECTS' CONFERENCE REPORTED

Riga SOVETSKAYA LATVIYA in Russian 27 Oct 79 p 2

[Report: "For Each City and Village--Its Own Look: The 10th Congress of Architects of the Latvian SSR"]

[Text] The 10th Congress of Architects of the Latvian SSR was held in Riga on 26 October. The hall was filled with delegates and numerous guests--specialists from design institutes, construction organizations and the construction materials industry and representatives of the Republic's creative unions. The architects of Moscow, the Ukraine, Belorussia, Lithuania, Estonia and other fraternal republics were also represented.

Comrades A. E. Voss, E. Ya. Aushkap, E. K. Peterson, P. Ya. Strautmanis, I. K. Strelkov, Ya. Ya. Vagris and A. K. Zitmanis were on the presidium. It also included M. L. Raman, deputy chairman of the Latvian SSR Council of Ministers and chairman of the Republic's Gosplan; Yu. N. Yura, head of the Department of Construction and Municipal Services of the Latvian SSR Communist Party Central Committee; Ya. F. Rubins, chairman of the Latvian SSR Gosstroy; I. V. Shishkina, deputy chairman of the Board of the USSR Architects' Union; Zh. S. Rozenbaum and N. N. Ullas, secretaries of the Board of the USSR Architects' Union; and M. Ya. Dubra, chairman of the Riga Gorispolkom.

Congress participants unanimously elected an honorary presidium, consisting of the Politburo of the CPSU Central Committee headed by Comrade L. I. Brezhnev, general secretary of the Party Central Committee and chairman of the Presidium of the USSR Supreme Soviet.

E. Ya. Aushkap, secretary of the Latvian Communist Party Central Committee, addressed the congress. He conveyed greetings from the Latvian Communist Party Central Committee, the Presidium of the Latvian SSR Supreme Soviet and the Republic's Council of Ministers to the 10th Architects' Congress, receiving enthusiastic applause.

The report, "For Every City and Every Community--Its Own Look," was presented by V. D. Shust, chairman of the Board of the Latvian SSR Architects' Union. The speaker and the congress delegates and guests taking part in the creative discussion mentioned the great events in the life of the nation and the Republic which also left their mark on the creative work of the architects. The most important of these events were the 25th CPSU Congress, the 60th anniversary of the Great October Socialist Revolution, ratification of the new Constitution of the USSR and the 60th anniversary of the establishment of Soviet power in Latvia.

Since the last congress, the architects have accomplished a great deal toward improving the physical makeup of the Republic's cities and villages, transforming the environment and uplifting the ideological-aesthetic and spiritual levels of the architecture. Man is always the center of focus for the architects. This means that urban development matters are resolved with the three areas of work, housing and rest and relaxation in mind.

The comprehensive regional planning guideline for the Latvian SSR is of great importance for the Republic's urban development. It is making it possible to conduct the territorial organization of cities and villages in a more practical manner and to distribute the facilities of industry, agriculture, forestry and other branches on a more prudent basis. All cities and villages are now practically provided with urban development documentation. In their continued improvement of the general plans of cities and villages, the architects have begun working in the area of rayon planning.

The development of plans for individual regions is under way. For the first time in its history, Riga has a comprehensive transport plan. A so-called underground urbanization plan is being worked out. Worthwhile recommendations for the territorial organization and composition of the urban buildup have been incorporated, among others in the detailed planning guidelines for the residential areas "Plyavniyeki" in the Republic's capital, "Ezerkrasts" and "Zalya birzs" in Liyepaya, "Gavek" in Daugavpils, and others. The adaptable expressiveness of their space-and-mass composition is well combined with services and facilities for personal needs. The contours of these housing areas are coordinated with the main elements forming the profile of the cities' central areas.

The main job of the architects under the 10th Five-Year Plan has involved the adoption of the new generation of plans in mass construction. The design range for industrially produced buildings has been expanded in housing construction: The first fully prefabricated 12- and 16-story apartment buildings have been built, and the plan is being developed for the first 18-story apartment building of monolithic elements. It is due precisely to such improvements that we can now speak seriously of creating housing development architecture which adds to the appearance of cities and gives them a unique quality.

The increased renovation of the city centers is contributing especially to this process. It has its own specific aspects in different places. In the development of the resort city of Yurmala, for example, the architecture is strictly designed to preserve its fame as a "city of green," a garden-city unlike either Palanga or Yalta. The city of Talsy is being skillfully developed by blending its terrain features in with well-organized public services and amenities. Through the architects' efforts the small, poorly laid-out village of Madona is being turned into a unique city with a distinct architecture. There are many such examples.

A number of large public buildings have appeared in the cities in recent years, which have improved their appearance, becoming a real embellishment. These include, among others, the Academic Art Theater imeni Yan Raynis and the Republic Cardiology Center in Riga, the Metallurgists' Palace of Culture in Liyepaya, the Palace of Culture of the "Sarkana bak" fishing kolkhoz in Ventspils, the "Dayle" Palace of Games and Shows in Yurmala, the cultural center and the administrative building in Priyekuli, and the "Latviya" Hotel and the "Oktobris" Theater in Daugavpils.

This focused urban development policy is making it possible efficiently to resolve problems of urban development and to improve architectural quality in the buildup of both old and new areas, without destroying but actually adding to their historical image with new architectural elements and arrangements.

There is a marked improvement in the planning of industrial facilities. They now undergo more thorough architectural development. Interesting architectural designs are also being encountered more and more frequently in the renovation of old plants and the construction of new ones. The creative work of the architects is characterized by an attempt to remove enterprises to special industrial zones, to conserve construction area, to employ multi-story structures, to combine buildings to the maximum possible degree, to thoroughly improve the working and general conditions of the workers and to make the production areas attractive. Riga's appearance has truly been enhanced by the "Velorvets" Public Catering Combine of the VEF Production Association imeni V. I. Lenin, the administrative, cultural and personal-service building at the "Avtoelektropribor" plant and new buildings for the "Radiotekhnika" Production Association.

There is extensive agriculture in our Republic. More than 600 villages are presently being developed according to general plans. They have, along with detached houses, two- and three-story apartment buildings and two-story row houses. The construction of housing with modular sections and the development of villages with cottage-type homes differing in architecture and internal layout are becoming widespread. The latter are produced by the Livany Experimental House-Building Combine.

It was pointed out at the congress that the architects had also not remained on the sidelines with respect to the concentration and specialization of agricultural production. They have begun taking a more active part in the designing of large animal husbandry complexes, greenhouse combines and farm produce storage facilities and devoting attention to their architectural impression. It is to their credit in part that a number of rural construction projects have been given high ratings. The creators of the settlement at the sovkhoz imeni Lenin in Rizhskiy Rayon were awarded prizes by the USSR Council of Ministers. Designers and builders of the "Privedes" Dairy Complex of the Buldurskiy Sovkhoz-Tekhnikum, the school in the settlement of Madliyena and a number of other projects were awarded prizes by the Latvian SSR Council of Ministers and medals and certificates of honor by the VDNKh [Exhibition of Achievements of the National Economy] of the USSR.

On the whole, we have every justification for saying that the architectural designs found in rural construction in our Republic are equal to those encountered in urban construction.

Congress participants also devoted a great deal of discussion to the application of our architectural heritage. The "Law of the Latvian SSR on Preserving and Utilizing Historical and Cultural Landmarks" passed in 1977 has helped to stimulate activities to preserve and restore architectural monuments. Along with the development of new general plans and detailed planning layouts for nine cities, protected zones and controlled construction zones have been created in the centers. The documents have been prepared for adding the historical centers of Riga, Tsesis and Kuldiga to the lists of Union-level urban development complexes.

Restoration work has been completed on such important architectural monuments as the town hall in Ventspils, the "chaynyy domik" at the farmstead at [illegible] and original structures from past centuries in Kuldiga. Restoration work continues on the St. Peter Cathedral in Riga, the Rundakl'skiy and Mezhotnenskiy palaces, medieval castles in Turayda, Tsesis and Bauska, and elsewhere. These projects include investigations and archaeological excavations. A plan for restoring the entire Old Riga area has been worked out in principle.

With respect to organizational-creative work, the congress delegates mentioned the practice, which has demonstrated its benefit, of conducting expanded board plenums at the various locations, as a rule involving the party and soviet aktiv. The more urgent problems involved in restoring and building up our cities and villages have been discussed at these plenums. The creative capability of the architects has grown considerably during the report period. The fine tradition of conducting Republic Architecture Day was born on the wave of that growth. Publication of the professional periodical ABD. ARKHITEKTURA, STROITEL'STVO, DIZAYN, was begun, a number of exhibits of architectural designs were held, an exhibit of the creative works of Honored Architect of the Latvian SSR M. M. Gelzis--the first personal exhibit in the union's history--was held, and numerous monographs, books and pamphlets were published.

Contacts with the Republic Artists' Union improved during the report period. The exhibit "To Our City" met with deserved success. At that exhibit artists and architects displayed interesting proposals for developing the environment in which they reside.

The congress participants criticized existing shortcomings in detail. They said that our Republic still has too few comprehensive urban development groups. The need for such groups is becoming especially great as a result of the expanded restoration of urban centers and the construction of centers in large residential areas, rural settlements and industrial zones. We continue to experience problems with respect to the overall planning of the architectural setting and the achievement of compositional originality and expression in the architectural designs for new urban and rural construction.

It was also pointed out at the congress that products of the arts are being adopted too slowly in new construction projects and that not enough attention is yet being given to appearance and visual impact in architecture. Obsolete series of apartment buildings are being replaced too slowly.

We have long had the need for architectural-design groups within the house-building combines, the absence of which is holding up operational decision making with respect to the production processes. The range of finishing materials produced by the Republic's construction materials industry does not meet urban development needs. The branch has not produced a single new finishing material for mass construction in the past five years. All of these things are limiting creative possibilities for the architects.

The decision adopted by the congress called upon Republic architects to further improve their professional level and increase their creative activity in all areas of their work and to raise the social and artistic level of the designs and their technical and economic effectiveness. Responding with action to the decree passed by the CPSU Central Committee and the USSR Council of Ministers, "On Improving Planning and Increasing the Influence of the Administrative Machinery with Respect to Improving Production Efficiency and Work Quality," Republic architects are filled with the desire to devote all of their efforts, their knowledge, talent and inspiration to their people, to their homeland, the Union of Soviet Socialist Republics.

The congress elected new members to the board and the audit commission of the Latvian SSR Architects' Union.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

CONSTRUCTION OFFICIALS PUNISHED FOR NEGLIGENCE, MALFEASANCE

Vil'nyus SOVETSKAYA LITVA in Russian 26 Sep 79 p 2

[Article by P. Tikhonov, worker with the State Construction Inspectorate of the Lithuanian SSR Gosstroy: "A Loss Both Material and Moral--Thoughts About the Results of Negligence on the Part of Certain Production Leaders"]

[Text] Construction technician V. -S. Zhvirblis' career had a successful beginning. He had only 18 months of practical experience when he was entrusted with directing construction of the Turgelyavskiy Hog-Breeding Complex, a project with a cost estimate of 3 million rubles. It is an honor and an exciting thing to be placed in charge of an independent project. Your future now depends upon you alone: Demonstrate what you can do.

As I sat in the courtroom of the Shal'chininkskiy Rayon people's court, I wondered why the construction superintendent was in the dock. How had it come about that V. -S. Zhvirblis was charged under Articles 158 and 182 of the Lithuanian SSR Criminal Code with substandard construction and malfeasance?

In order to answer these questions we must review the history of the construction of the Turgelyavskiy Hog-Breeding Complex. The work had been in progress 4 years when V. -S. Zhvirblis took over the project. The situation at the construction site was extremely bad. The targeted date for start-up was not met, the work schedule had not been maintained. Officials of the Shal'chininskaya PMK [Mobile Mechanized Column] had replaced foremen and work superintendents one after another. The selection of V. -S. Zhvirblis now seems ill-considered at the very least. Under the statute on the construction superintendent, an individual lacking a secondary specialized education can only be appointed to that position after he has worked at least 5 years as a foreman. At that time, V.-S. Zhvirblis had neither a diploma nor, as mentioned above, adequate experience. The leaders of the PMK were possibly counting on his youth and enthusiasm: There have been many cases in which such trust has been repaid a hundred times over. It was not justified this time, however.

The situation at the construction site did not improve under the new work superintendent. The work did step up in the beginning, to be sure, but the results were literally astonishing. The drive-on ramp, for example, was built out of alignment by... 180 degrees. Even from afar, one's attention was drawn to the wavy, zigzags in the front wall of the administrative and personal-service building (documents submitted to the court stated that "there is a vertical deviation of as much as 10 cm in the brickwork"). The roofs were built on the pigsties in such a way that they have been blown off several times by the wind....

Chief design engineer Z. Valaytis, appearing as a witness, had the following to say:

"In the performance of our author's supervision we revealed the fact that the construction work was not being carried out according to the plan. We registered our comments in the work progress log located at the site. Officials in charge of the mechanized column did not react seriously to them. They made no entries in the log to indicate that steps had been taken, and the defects were not corrected. As a rule, changes in the plan were coordinated with the Design Institute after the fact."

At one point, the client suggested that the builders redo a job they had already finished, running the drainage gutters not along the passageway between the partitions, as had been done according to the plan, but next to the feed troughs. The work supervisor agreed and the labor-consuming job was performed without the agreement of the designers. It was later determined that this was worse than the original arrangements. The gutters had to be changed back to the original arrangement. The client paid for the work, of course, but it was state funds which were being spent. Brigade leader S. Uletskiy calculated that it cost approximately 15,000 rubles to relocate the gutters in a single sty. The work superintendent's loose handling of the plan cost the state a pretty penny.

As one thinks about this occurrence, he tries to understand the factors producing such an irresponsible attitude toward the work, toward his duties, on the part of an individual who had such a bright future ahead of him. No matter how inexperienced the work superintendent was it is difficult to imagine that he could have failed to realize what he was doing. Furthermore, such obvious construction flaws could not have gone unnoticed by officials of the PMK, whose duties include, among others, that of monitoring the work of personnel in the field. Column chief A. Shemeta and former chief engineer P. Krasauskas frequently visited the construction site. Judging from the results of their visits, however, the quality of the work did not concern them at all. Labor organization in the section also left something to be desired. Complex director A. Stankus gave the following example in the court: At one time trucks arriving at 0900 hours from Varyen'y hauling panels ordered for the project waited until evening to be unloaded. There was no crane. And this was not the only such incident.

The sense of responsibility is not dulled all at once. The PMK officials, let us say, somehow managed to justify themselves at the next meeting of the rayispolkom--all right. They were criticized in the newspapers TIYESA, SOVETSKAYA LITVA and CHERVONY SHTANDAR. They had their say and quieted down. It is not surprising that V. -S. Zhvirblis' sense of responsibility followed approximately the same pattern in its transformation. If the panels delivered were not the same as those ordered... he installed them. One could see an irregularity in the brickwork... it would settle. The installation work was poorly performed... it would do. And in fact, it did! Is it any wonder that the permissible limits were overstepped in this situation? A feeling of complete impunity nudged V. -S. Zhvirblis into malfeasance: When documents pertaining to the concealed work were drawn up and had to be signed by all parties concerned, he did not hesitate long before forging the signature of the chief engineer at the complex on 28 documents. Irresponsibility had turned into crime.

It is difficult to understand why no one pointed out to V. -S. Zhvirblis in good time the fact that his actions were not to be tolerated. Statements such as the following were made at the court hearing: "The chief engineer would arrive and scream 'Fulfill the plan!' and then leave. But who was there to work with? There was great personnel turnover and most of the workers were poorly qualified...." There were also direct accusations: "There was no feeling of proper supervision on the part of the PMK engineer service" (V. Abdullayev, A. Puydokas).

In fact, poor control was exercised over the course of the work at the projects on all levels. For a number of years, construction of the complex was handled by both the Vil'nyus Territorial Construction Trust and the Republic's Ministry of Rural Construction. The Trust was represented at the project for around 6 months by A. Shimonis, deputy chief of the production department, and other officials also frequently visited the site. Despite this, the defective work was not corrected until 1978, and irresponsibility became more and more deeply entrenched. At this point, the State Construction Inspectorate of the Lithuanian SSR Gosstroy turned over the materials to the procurator's office.

The guilty parties had been punished. People's control reclaimed a deficiency from the pay of PMK chief A. Shemeta. Criminal charges were filed against former chief engineer P. Krasauskas, but the case was not pursued further at the request of the Vil'nyus Territorial Construction Trust. It was the work superintendent who faced the court, because it is his duty under the statute on the work superintendent to /"construct buildings and installations according to the plans, to adhere to the construction technology and to systematically monitor the quality of the work and the quality of incoming materials"/ (emphasis mine--P.T.). In arriving at a sentence, the court found it possible not to apply the punishment of imprisonment in the case of V. -S. Zhvirblis, although the aforementioned articles of the Lithuanian SSR Criminal Code provide for deprivation of freedom for a period of up to 3 years.

When this article was being prepared the situation in the construction of the complex had changed somewhat: A large part of the defects and faulty work had been corrected, labor organization had improved and the pace of the work had picked up. We could end the article at this point if not for one other aspect of the matter.

The decree passed by the CPSU Central Committee "On Further Improving Ideological and Political and Indoctrinational Work" states the following: "Evaluation of the work of directors and administrative personnel must take into account not only indicators for the fulfillment of production plans but also the level of discipline, the moral-political atmosphere in the collective and working and living conditions." A lack of principle and negligence in the performance of their duties by all workers responsible for the state of affairs on the construction project not only inflicted an economic loss but also did great moral damage to the Shal'chininskaya PMK collective. Over a period of many years, the personnel had come to believe that they could violate discipline, perform their work in a slipshod manner and turn over an obviously defective product, all with impunity.

The court punished those directly to blame. Indirectly, however, many individuals taking part in the construction of the Turgelyayskiy complex were to blame for the situation which developed. Did they draw the conclusion that negligence is not a harmless matter, that it is even criminal if not caught in time?

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CSO: 1821

CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

CONSTRUCTION SITUATION IN ESTONIAN SSR AIRED

Crediting and Financing as Control Levers

Tallin SOVETSKAYA ESTONIYA in Russian 25 Sep 79 p 2

[Article by S. Strenze, deputy manager of the Estonian Republic Office of the USSR Stroybank (All-Union Bank for the Financing of Capital Investments): "A Ruble in Construction"]

> [Text] What the Analysis Showed--Among the Improvident Administrators--Accelerating Installation--Conscientiousness is Mandatory

The decree passed by the CPSU Central Committee and the USSR Council of Ministers on improving the administrative machinery lays special stress upon the inseparable link between current production planning and new construction. This situation has been brought about by a number of factors, prominent among which is the level of development of production forces presently achieved. By the beginning of 1979, the USSR's fixed production capital was 2.8-fold greater than in 1965, representing the enormous sum of more than a trillion rubles. This great magnitude forced us to take a new approach to the planning of capital construction and to its financing and crediting.

The administrative work of construction organizations will now be rated and their economic incentives determined not on the basis of gross volume but according to their fulfillment of assignments for the start-up of production capacities and facilities, commercial construction output and growth of labor productivity and profit. Clients and planning organizations are only to receive incentives if they meet the above conditions, and this requires that they do everything possible to help the contractors fulfill the start-up programs.

Financial and credit levers are especially important in this connection. It is planned to use them to make the builders more concerned about making better use of production funds for conserving materials.

These and other measures should go a long way toward improving the situation in capital construction, where there are still many deficiencies. We also have them in our Republic. Start-up plans are frequently not fulfilled and standard construction periods are not adhered to. One of the main causes of this, of course, is the scattering of capital investments. Unfortunately, we have still not eliminated the harmful practice of adding new projects to the plans when there are not enough resources available to complete construction projects carried over. New projects are frequently included, for which planning-estimate documentation has not been provided in the prescribed manner.

A look at itemized lists of construction projects shows that in 1979 certain republic ministries and departments did not insure proper concentration of capital investments or their most effective utilization.

As of the current year, capital investments earmarked for 38 carry-over projects are 13.8 million rubles less than specified in the itemized lists for the entire construction period. Start-up dates for many projects have been moved back, as a result of which the republic's economy this year will be shorted production capacities with an annual output of 11 million rubles worth of products, more than 15,000 square meters of housing, 200 hospital beds, and so forth.

It has also been revealed that with inadequate capital investments for carry-over projects, 78 new ones have been added to the plans with an estimated cost of 23.6 million rubles and an annual capital investment volume of 10.2 million rubles.

Certain ministries and departments are not showing adequate concern for the compilation of projects for the 1980 capital construction plan. Despite the above-described deficiency, for example, new projects have been added to the draft plan for "Estonglavenergo," the majority of which have not been provided with capital investments based on normal construction periods.

We believe that as a means of making more efficient use of capital investments, reducing the volume of unfinished construction and insuring uninterrupted financing, the ministries and departments should thoroughly consider the matter of excluding some new construction from the 1980 plan with a view to channeling the funds released into the construction specifically of carry-over projects.

The following deficiency also exists in republic construction practices. Many projects, and this especially applies to housing and civil construction, are systematically released with substantial shortcomings. For example, a secondary school was accepted by the state commission in Pyarnu on 29 December 1978. In addition to the fact that it lacked the athletic facility, the permanent heat line and the boiler room specified by the plan, the electricity, telephone and fire-and-security alarm systems were also not functional. Nor had the construction debris been removed. As a result, the school was not in operation the past school year.

the adjacent area is not improved, driveways and sidewalks are not built and inter-block telephone cable and outside lighting are not provided for most of the apartment buildings released by the Tallin DSK [House-Building Combine]. As a result, it is a long time before the new residents move into buildings accepted for occupancy.

Naturally, the clients are in no hurry to sign the acceptance documents and demand that the defects be eliminated. As a result, there is a great delay in the submission of the contractor's payment vouchers to the bank, which has a negative effect on the construction organization's financial situation. Additional delays result from the nonfulfillment of plan assignments. In the past 6-month period the contract job plan was fulfilled by only 98 percent. This included 95 percent fulfillment for the Estonian SSR Ministry of Construction and 99.3 percent for the USSR Ministry of Power and Electrification. Three organizations under the Estonian SSR Ministry of Construction did not fulfill the profit plan. Seven of 13 subsidized organizations under the republic's Ministry of Construction exceeded scheduled operational losses by 399,000 rubles. Many subdivisions of the rural construction trust are operating with large losses. Construction organizations under the Estonian SSR Ministry of Construction also systematically failed to fulfill assignments for putting stocks of materials and capital equipment into circulation, as a result of which considerable above-plan stocks accumulate.

We are also concerned about systematic failures to transfer so-called "own" funds into the financing of capital investments. This applies to the Estonian SSR Ministry of Construction, Gosstroy and Main Supply Administration, among others. As of 1 July this year, the Estonian SSR Ministry of Health and Ministry of Consumer Services and the "Slantsekhim" Association had also failed to transfer some of their own funds.

The fact should also be mentioned that many ministries are not always seeing to it that equipment is turned over for installation as rapidly as possible. A total of 6.4 million rubles worth of imported equipment alone has been held up as of 1 August 1979, including 3.4 million rubles worth under "Slantsekhim."

There are also instances of premature planning--for the archives, so to speak. The Estonian SSR Ministry of Timber and Wood Processing Industry, for example, accumulated planning documents for 6 years in advance, the Ministry of Light Industry for 7 years, which naturally results in significant unproductive outlays and to the writing off of unused planning-estimate documentation. We have been forced to write off almost 1.2 million rubles worth during the current five-year plan.

What do such facts indicate? First of all, they indicate poor management, whereby decisions are made to plan and design facilities without adequate substantiation of economic feasibility and without taking into account the practical possibility of building them. This practice should be ended.

We also need to increase material responsibility for the fulfillment of contractual obligations in construction. We point out the fact that regulations concerning contractual agreements for capital construction provide for liability as to the property but are in fact not applied. The parties to the agreements--clients and contractors--have become accustomed to overlooking each other's shortcomings, of pardoning each other, as it were. This attitude must also be rejected. We will be assisted in this matter by the universal adoption in 1981 of accounting between clients and contractors for enterprises released for operation and priority complexes, lines and facilities ready to begin producing or providing services. Payment for jobs will be based on the estimated cost of commercial construction output.

Even now, when accounting is predominantly for completed objects based on the estimated cost of construction and installation but independent of their start-up, such accounting procedures along with other factors are accelerating construction rates considerably.

The decree calls for the gradual transition in certain branches to the construction of enterprises (installations) with credit provided by the USSR Stroybank in the amount of the full estimated cost accepted by the general contractor. Finished enterprises, down to lock and key, so to speak, must be turned over to the client.

This system has been tested in our republic since 1970, specifically in the construction of a plant for the primary processing of hides in Narva. That facility was turned over a month ahead of the normal completion date, with a saving of 4,000 rubles in the estimated cost. The advantage of this system lies in the fact that the balance for the contracting organization covers almost all outlays, including the cost of equipment. This encourages the most rapid possible release of facilities. The contracting organization is reimbursed for expenditures through bank credit.

Credit for incomplete performance of construction and installation jobs has become more and more widespread here in recent years. As accounts have been consolidated and intermediate payments gradually been eliminated, the absolute and relative amount of this crediting has increased considerably.

The issuing of advances by clients to contracting organizations for expenditures on uncompleted construction is ending with the transition to accounting based on the estimated cost of commercial construction output. Such outlays will be covered by banks until the scheduled release date. A level of up to 10 percent of the annual volume of contracted jobs performed by the corresponding organizations with their own personnel and means is being set for outlays on uncompleted construction and installation jobs (for the credit adjustment interim period). This amount will be provided out of the contracting organization's own funds for such purposes, with the balance covered by a bank loan. Credit can be issued within the limits of the clients' funds freed as a result of converting to accounting for finished commercial construction output.

All of this advances the task of mobilizing the funds for providing credit. This is to be done primarily by eliminating existing above-normal stocks of equipment and other commercial materials. In the final analysis, both the clients and the contractors will benefit. The fact must be stressed, however, that this will not come about una isted. We must do everything possible to improve organizational work a' e construction sites and to increase responsibility for the strict fulfillment of contractual obligations. In other words, we must take a conscientious approach to the spirit and the letter of the party and government decree on further improving the overall economic system.

Housing and Municipal Services

Moscow ZHILISHCHNOYE I KOMMUNAL'NOYE KHOZYAYSTVO in Russian No 9, 1979 p 16

[Article by V. Grozevskiy: "Estonia: Growth Statistics"]

[Text] Next year will be the 40th anniversary of the founding of the Estonian Soviet Socialist Republic and its voluntary entry into the USSR.

It has developed extensively in the area of housing and municipal services. A special section was devoted to this subject in the recently published pamphlet "Estonskaya SSR v tsifrakh" [The Estonian SSR in Figures] (Tallin, Periodika, 1979). The pamphlet contains only statistics, but they speak more eloquently than could any words about the great changes which have occurred in Estonia in less than a half century.

Available housing has increased almost three-fold, from 5.5 million square meters to 15.6 million square meters (total useful area). At the present time there is 15.4 square meters of useful area per capita in the republic's cities, one of the highest figures in the nation. It must be noted that the republic's population increased almost 1.5-fold during that same period. In 1940 [illegible] 65 percent of the entire population now live in cities and urban-type settlements (the figure was only 30 percent in 1940).

Around 97 percent of all the housing is provided with piped-in water and sewerage, 66 percent has central heating and telephone facilities, 77 percent has gas, and 100 percent of the housing has electricity.

The Estonian SSR now has 33 cities, 32 of which have waterlines and sewer systems. These conveniences are enjoyed by 23 of 26 urban-type settlements.

While only two cities were provided with gas in 1940, gas facilities have now been installed in all cities and urban-type settlements.

The total capacity of all categories of hotels has increased several-fold--from 600 beds in 1940 to 5,230 in 1977--and the annual occupancy rate rose from 18,000 to 1,844,000 days.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

[illegible] LENINGRAD FLOOD BARRIER UNDERWAY

Moscow KRASNAYA ZVEZDA in Russian 23 Sep 79 p 4

/Article by V. Ovcharov (Leningrad): "Taming the 'Long Wave'"/

> /Text/ From morning to late in the evening the rumble of the mighty dump trucks, which are moving along the Primorskiy Highway in the direction of the settlement of Gorskaya, does not cease. Here, in the northwestern part of Greater Leningrad, which has enveloped the Neva Bay with the "horseshoe" of its blocks, at Kotlin Island, in the region of Lomonosov construction is being launched, such as neither domestic nor world practice has yet known: the building of a unique hydraulic complex, which will become a reliable flood barrier and will for ever protect the city on the Neva from these natural disasters, is beginning. In conformity with the decree of the CPSU Central Committee and the USSR Council of Ministers, "On the Construction of Structures to Protect the City of Leningrad From Floods," the hydraulic complex should be put into operation in 1990, but today it is already evident: its building will become an unforgettable page in the history of Leningrad, an enormous social, technical and economic achievement of the Soviet people.

If you collected all the scientific works and memoirs, which are connected in one way or another with the Leningrad floods, you would have a complete library. During the 276 years of its existence the city has endured about 290 large and small floods. The latest occurred on only 15 September of this year, when the water level in the Neva reached 187 cm above the normal water level. The floods frequently drowned people and destroyed the fruits of their labors. They aroused the imagination of poets, did not let the scientists, who were trying to understand the nature of the elements, sleep in peace. But everything began as follows:

"After the capture of Kantsy (that is, Niyenshants--author's note) a military council was held. It was either to strengthen the fieldwork or to look for another opportune place (since it is small, far from the sea and the place is not very reliable against nature), in which it was proposed to look for a new place, and after several days a convenient place for that was found--an island which was called Lust Elant, where on the 16th day of May (during the week of Pentecost) a fortress was founded and was called St. Petersburg...."

The compiler of "Istoriya Severnoy voyny" /The History of the Northern War/, who left us this version of the founding of the great city on the Neva delta, could not have expected that on that day, 16 May 1703, along with the first stone, which was laid in the foundation of the Peter-Paul Fortress, a scientific and technical problem was born, on the solution of which centuries would be spent. Three months later, literally opposing Peter's will, the waters of the Neva began to flow backwards and poured down on the camp of the Russian soldiers who had begun the construction project. The opponents of the tsar's reforms rejoiced: "Let Petersburg be deserted!" But the decision of Peter I and his comrades in arms remained unyielding: the city, which seemed to its founders as "a window to Europe," should have helped Russia "rise on a firm footing at the sea," continued to grow and get stronger.

Decades passed. By drying up the swamps, strengthening the banks with piles, raising the pavements and sidewalks of Petersburg, the people won it step by step from the Neva. The city grew more beautiful, its straight streets became surrounded by beautiful palaces built by the hands of Russian craftsmen, the embankments were faced with elegant granite. New glorious pages appeared in its biography. Great October happened here, the city began to bear the name of Lenin.

While expanding and improving, the city did not cease to reflect the onslaughts of the elements. The floods of 1777, 1824 and 1924, which remained in the memory of the "Venice of the North" formidable marks on the depth gauge: 310, 410 and 369 cm above the normal water level, were especially destructive. During all these decades the scientific and technical thought of the country, which was advanced for its times, sought answers to two main questions: why do floods occur, how do you protect the city from them?

It was just as easy to formulate these two questions as it was difficult to answer them. Just 15-20 years ago, by analyzing the discoveries and hypotheses of scientists of several generations and relying on the latest achievements of meteorology, hydrology and other scientists, specialists were able to provide, at last, a correct and complete picture of the origin of floods. It turned out that the risings of the water are connected not with the "nature" of the Neva, but with low-pressure areas, which emerge far from Leningrad, near the shores of Iceland, and move to the Baltic. Photographs made from space also confirmed this. The low-pressure area as if "raises" enormous masses of water, a so-called long rolling sea arises, which rolls in a mighty swell to the mouth of the Neva at a speed of up to 100 km/hr. In this case up to 100,000 m^3 of water: 40 times more than the average runoff of the Neva!, enters the Neva Bay from the Gulf of Finland in a second.

The hydraulic complex under construction will become an obstacle in the path of the "long wave." Tens of different plans for protection against floods are recorded in the history of the city. The first of them date back to 1716-1727. But neither then nor much later could any of them be implemented. In the division of Leningrad projects (there is such a unique division in the Leningrad Department of the Order of Lenin All-Union Scientific Research Institute of Planning of Hydroprojects imeni S. Ya. Zhuk /Giproproyekt/) I was shown the book "Leningrad v bor'be s navodneniyem" /Leningrad in the Struggle Against Flooding/. It was published in 1925. Here is what Professor S. Sovetov wrote in it:

"It is possible to ensure the safety of Leningrad from floods only by means of special structures, which are capable of withstanding the enormous pressure of water from the sea. There is no other solution. The time will come when the USSR Government will be able to release the necessary assets for this purpose."

The future, about which the scientist spoke, has become the present. But its foundations were laid in the 1920's, when the interdepartmental commission for the study of floods and means of protecting Leningrad from them was founded. The most prominent hydrologists and engineers examined at that time all the plans for protecting the city, which had been proposed during the past century and a half. And here their attention was drawn by a plan, which had been lying in the archives exactly 100 years. Its author, military engineer Bazen, reasoned: in order to save the city, it is necessary to span the Neva Bay with the arc of a stone dike, the middle of which will fall to Kotlin Island with Kronshtadt. Bazen's idea was astonishingly farsighted. Comprehensive studies showed that the optimum version for Leningrad is to block the path of the "long wave" in the Gulf of Finland, 30 km from the mouth of the Neva. Thus the second life of the plan began, but on a new, qualitatively different level.

"The sea 'shutter' of Leningrad," relates chief project engineer S. Agalakov, "will be not a dam, not a dike--I would especially like to emphasize this--but a complex of hydraulic engineering structures, which rather is reminiscent of a gigantic 'comb.' It will stretch 25.4 km from Gorskaya, via Kronshtadt to Lomonosov. The height of the complex will be 8 m above sea level, while the width along the top will be 30 m. The similarity with a 'comb' is explained by the fact that six structure to let water through and two structures to let ships through will be located along the entire length of the route."

The southern "gates" for the passage of ships will have a width of 200 m, the northern ones will have a width of 110 m, while each of the 64 openings to let water through will have a width of 24 m. In other words, the artificial channel on the whole will be about 2 km. Such a design guarantees a good water exchange between the Neva Bay and the Gulf of Finland and, hence, does not disturb the ecological conditions of this water area.

The hydrocomplex will also serve as a six-lane superhighway, which subsequently will become a part of the Leningrad Beltway. Tunnels will be built under the northern and southern "gates," while bridges will be built over the facilities to let water through. As soon as a report on an imminent "long wave" is received, all the "gaps" of the structures will be closed tight in half an hour by special gates on command from the central control panel. The gates of the "entrances" alone will weigh together more than 10,000 tons. The entire hydraulic complex will withstand a water pressure even of up to 1 million tons and will protect the city with a rise of the water of up to 540 cm.

The engineering plan of the unique complex takes up 115 volumes of documents. But, I dare say, another figure strikes the imagination most of all. In order to create the embankment of the structures 20,334,000 m^3 of rock will be needed--as much as could be hauled by three trains stretching from Leningrad to Vladivostok.

The assault on the elements has begun. The construction of the protective hydraulic complex has been declared an All-Union Komsomol Shock Construction Project. And the day will come when we will be able to speak about floods only in the past tense, and the lamentably famous depth gauges of Leningrad will supplement the list of historical sights of the city.

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CONSTRUCTION, CONSTRUCTION MACHINERY, AND BUILDING MATERIALS

BOOK ON MUNICIPAL FINANCING REVIEWED

Moscow ZHILISHCHNOYE I KOMMUNAL'NOYE KHOZYAYSTVO in Russian No 10, Oct 79 pp 16-17

[Review by V. Rutgayzer, doctor of economic sciences, and S. Sokolova, division head and staff scientist, respectively, of the Scientific Research Economics Institute of USSR Gosplan, of the book "Byudzhet goroda (problemy i perspektivy razvitiya)" by G. B. Polyak, Moscow, Finansy, 126 pages]

[Text] Contemporary society's development is inseparably bound up with urbanization. In the years of Soviet rule 1,174 cities have taken shape in our country. In 1917 there were only 2 cities with a population over 500,000, while according to the January 1979 census there were 45, 18 of them with a population of more than 1 million. But how is the development of cities financed? What is the financial basis for their development? How are the resources of their budget disbursed most economically? These questions are the subject matter of G. B. Polyak's monograph ("The City Budget: Problems and Prospects for Development").

When well thought out, urban development can mitigate the adverse consequences of urbanization, but certain funds which the city must have available to it are required for this purpose. These funds, constituting its budget, vary greatly in per capita terms as a function of the city's size. In the largest cities they amounted to 188 rubles in the Ninth Five-Year Plan, and in small cities 32 rubles. But although the building of large cities takes comparatively larger funds, they at the same time turn out to be more economical in current operation. To be sure, in confirming this conclusion, which on the whole is correct, the author brings to bear data which are 25 years old. There really has been more recent work on this.

The conditions for a city's development are determined by its own staff services. The author accordingly offers a definition of the term "gorodskoye khozyaystvo" (municipal utilities and services). He takes it to mean the interrelated group of enterprises, organizations and institutions which are a part of society's socioeconomic infrastructure. He notes that the present level of municipal services and utilities does not fully correspond to the needs of the public. The main obstacle here is the lack of sources for development. At present there is an unjustified multiplicity of channels through which funds to finance the operation of cities are formed. The result is that capital investments are fragmented and used inefficiently. The author is quite right to argue that material and financial resources need to be concentrated and that a unified technical policy should be conducted and oriented toward development of municipal services and utilities by transferring departmental utility enterprises to local Soviets (page 14). This strategy would make it possible to reinforce the material and technical base of those enterprises and to improve services to the public.

The analysis is conducted on a large mass of interesting statistical material. Expenditures of city budgets for the USSR and for union republics are examined. The breakdown of city budgets by types is given. Urbanization, the author notes, is bringing about an increase in the share of budgets of relatively large cities (under republic, kray, okrug and oblast jurisdiction).

The third chapter is devoted to the organization of capital investments in municipal services and utilities. Stress is put on the need to concentrate them in the hands of a single client--local Soviets. At present this kind of financing goes not only through Soviets, but also through ministries and departments. This accounts for the scattering and under-efficient use of the funds, since in building housing and consumer-service facilities ministries and departments fall far short of giving full consideration of the requirements of well-rounded construction of the city as a whole.

There is also a difference in the adequacy of the public and consumer services to the public as a function of whether they are financed through the Soviets or through departments. To be specific, those living in departmental housing have a relatively lower level of adequacy of housing and public and consumer services.

As we know, a decree of the USSR Council of Ministers dated 26 August 1967 called for the gradual transfer of the departmental housing stock to local Soviets. But this transfer is taking place extremely slowly. The relative share of the housing stock of local Soviets for the USSR as a whole increased from 39.1 percent in 1971 to 39.5 percent in 1975.

The monograph supposes that economic instruments be applied to promote more optimum use of urban land. There is good reason to raise the issue of enhancing the role of long-term credit financing of capital investments with Gosbank loans. Credit financing of public services and utilities, in the author's opinion, would motivate local Soviets to make more efficient use of capital investments by seeing to a reduction in the length of their payoff period.

Particular attention is paid to financing the social welfare infrastructure of cities. The reason is that city budgets are one of the channels through which public consumption funds reach the public.

"The relative share of budget expenditures for social welfare and cultural programs in public consumption funds shows a declining trend. The reason is that as cost accounting develops and becomes more elaborate in enterprises, it is becoming possible to set aside more funds for these programs from the fund for social welfare and cultural measures and housing construction. Correspondingly less financing is coming from centralized public consumption funds, in particular from city budgets" (pages 44-45). This, of course, is not a very favorable trend. It reflects intensification of disproportionality in the use of public consumption funds and runs counter to the very nature of this source of personal income.

Overcoming these differences depends on the conditions for building up funds in city budgets. Of course, there is a need for optimum combination both of budget funds and also resources of enterprises allocated for development of the social welfare infrastructure. For example, budget funds are the principal source of financing for schools, which are now also receiving material and financial support from sponsors--enterprises and organizations. The author's proposal for setting up a sponsors' aid fund in rayon (city) public education divisions deserves attention. It would be formed on the basis of above-plan profit of enterprises located in the given district. This would make it possible to overcome the unjustified difference in the material resources of various kinds which schools receive from their sponsors.

A separate chapter in the monograph (Chapter V) examines development of the housing and public service sector (zhilishchno-kommunal'noye khozyaystvo), its relation with the city's budget, and the profitability and rate of loss of individual elements.

One of the most profitable public service sectors is water and sewer service: it needs hardly any subsidies from the budget for current maintenance and covers its operating expenses out of its receipts.

Municipal passenger transportation on the other hand operates at a high rate of loss. Its receipts represent 0.15 percent of revenues in city budgets, while outlays to maintain it represent 0.2 percent of expenditures.

At the same time there are quite a few areas of unused potential in the housing and public service sector (and in city budgets as well). The author rightly raises the question of reducing water losses (for the country as a whole they represent 7-8 percent of the total volume of water fed into the network) by improving equipment, the regularity of its repair and more economical use of water by consumers. "... Unjustified water losses in water supply systems of local Soviets are annually inflicting a huge loss of more than 320 million rubles on society. In future the sum total of unjustified expenditures will increase at the same level of water losses, since water consumption is rising, and the absolute volume of its losses increases correspondingly" (page 82).

The proposal to supply apartments with water meters deserves attention. The saving on funds would pay off the cost of installing these devices in just 3 years.

Chapter VI is devoted to the problems and prospects of creating sources of financing for municipal services and utilities. Revenues of city budgets are examined in detail: assigned revenues, regulating sources of revenues, and payments from the profits of enterprises under union and republic jurisdiction. The question is raised of whether the funds earmarked for development of the socioeconomic infrastructure of cities should not be concentrated at the disposition of local Soviets.

Assigned revenues make it possible for local Soviets to have their own source of revenues. Yet two opposing tendencies are manifested here. On the one hand there is a reduction of assigned revenues related to the growth of new cities and the drop in the profitability of certain sectors of the economy. On the other hand we note an increase in the profit of cost-accounting enterprises and organizations subordinate to local Soviets. It is this profit which makes up the bulk of assigned revenues of local budgets. "Local industry, the trucking industry, trade, the food service industry, consumer services, water and sewer service, the gas industry, hostelry and certain other industries under local jurisdiction are promising from the standpoint of increasing payments into local budgets. For example, the profit of hostelry has grown 68 percent since 1966, that of water service 76 percent, that of sewer service 2.4-fold, and that of the gas industry (for liquefied gas)--2.4-fold" (page 96).

The author makes particular mention of the relationship between consumer-service enterprises and the city budget. We deem this discussion to be well founded, since every year the volume of services they render is growing. The result is a growth of the profit which goes into the budget of local Soviets. There is good reason to raise the question "of the distribution between the economic entity and the budget of all the profit obtained from doing jobs on a large scale and rendering services to the public, as has been done in other industries" (page 97).

Local taxes and levies are still another source of assigned revenues of local budgets. To be sure, their share is decreasing, which is decisively explained by the gradual discontinuation of taxes on the earnings of workers and employees.

The book goes on to discuss the regulating revenues of local Soviets, whose purpose is to help to equalize levels of economic development of various administrative units. The author proposes a number of directions in which use of the turnover tax might be improved; this is the principal regulating revenue of the local budget (page 101). They include expansion of the opportunities for local Soviets to obtain above-plan revenues when the plan is overfulfilled for the turnover tax; enhancement of the responsibility and motivation of enterprises to fulfill the plan for the turnover tax, which should become one of the indicators used in evaluating the performance of enterprises; and improvement of the methods of planning the turnover tax in its regional breakdown.

The question is raised of expanding the list of regulating sources of revenues of local budgets by means of payments from profit (the undistributed remainder, fixed payments, the charge on fixed productive capital and normed working capital, and transfers from profit). The author's view that the charge on capital would be the most stable form of revenues of local Soviets should be supported. "This would also motivate local Soviets to keep a closer watch on punctual and complete activation of fixed capital and projects being built in their jurisdiction and it would be conducive to improve use of capital investments in the economy" (page 103).

The final chapter of the book takes up the problems of forecasting municipal budgets. The author takes up in this connection the drafting of separate long-range comprehensive programs for economic and social development of union republics, oblasts, and cities, which would also reflect the conditions for formation of local budgets.

On the whole we should say that the book under review deserves the attention mainly of specialists concerned with the problems of financing housing management and public services. The author has assembled, processed and analyzed extensive statistical materials reflecting the formation and use of the city budget.

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